SUPPLEMENTARY REMEDIAL INVESTIGATION/REMEDIAL WORK
EVANS STREET SITE
BATAVIA, NEW YORK

VOLUME I

Prepared for:
City of Batavia
10 West Main Street
Batavia, New York 14020
and
Graham Manufacturing Company
20 Florence Avenue
Batavia, New York 14021
December 11, 1992

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December 11, 1992
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Mr. William Reemsten
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Re: Supplementary Remedial Investigation/Remedial Work
Evans Street Site
Batavia, New York

Dear Mr. Reemsten and Mr. Northrup:

Woodward-Clyde Consultants is pleased to submit the Supplementary Remedial Investigation/Remedial Work report to the City of Batavia and Graham Manufacturing Company. Please contact us with any questions or comments. We appreciate the opportunity to be of service to you on this project.

Very truly yours,

for John H. Gratz
Senior Consultant

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VOLUME II

APPENDIX I TREATABILITY STUDY

1.0
INTRODUCTION

1.1 SITE HISTORY

The county of Genesee has been investigating the feasibility of purchasing three parcels at 26 through 100 Evans Street in the City of Batavia, Genesee County, New York. Figure 1-1 contains a site location map and Figure 1-2 delineates the three parcels. The combined parcels constitute an 11.72 acre site on which the county desired to locate a governmental complex consisting of a joint city/county courthouse, mental health facility, and human services facility. Due to circumstances hindering the development of the whole site, the county interest has been restricted to the central and northern-most parcels for location of a courthouse only. These parcels are owned by the City of Batavia and Graham Manufacturing Company (and Peter Della Penna). Subsequently, the Evans Street Site (site) environmental investigations to date have focused on these two parcels which comprise approximately 8.2 acres, with remedial work primarily concerned with the northern parcel. Formerly, the northern parcel was home to numerous commercial enterprises. The most significant of these was the Doehler Die-Casting Company's (or subsequent owner's thereof) Aluminum Division Plant which produced aluminum, brass and bronze die-castings from aluminum and copper rawstock feed between 1924 and 1971. Some structural remnants of this plant are still in existence.

Previous investigations on the site include the following:

Earth Investigations Ltd., Orchard Park, NY. "Phase I Real Estate Investigation at 26 through 100 Evans Street." Prepared for the County of Genesee, Batavia, New York. February 20, 1990.

Earth Investigations Ltd., Orchard Park, NY. "Phase II Real Estate Investigation at 26 through 100 Evans Street." Prepared for the County of Genesee, Batavia, New York. June 14, 1990.

ODNY Inc., Orchard Park, NY. "Quantitative Environmental Analysis on the Proposed Site of the Downtown Municipal Facilities Complex Development Project." Prepared for the Genesee County Industrial Development Agency, Batavia, New York. February 25, 1992.

As a result of these investigations, it was determined that the extent and degree of contamination on the site did not require its listing on the New York State Department of Environmental Conservation (NYSDEC) inactive hazardous waste site registry. However, laboratory analysis did indicate that some soils needed to be remediated before their condition adversely effected the groundwater across the site. After input from the NYSDEC, the City of Batavia and Graham Manufacturing Company (hereinafter referred to as Client) contracted Woodward-Clyde Consultants, Inc. (WCCI) to develop a Remedial Work Plan (dated July 1, 1992) for remedial action to be taken on the soils at the site. Some additional work was performed for the City of Batavia, which was approved by the City, and this work is distinguished in this report. Any potential remedial action for groundwater was not addressed in this portion of work.

1.2 SITE DESCRIPTION

The Evans Street Site is located within the city limits of Batavia, one block south of Ellicott Street, in a section containing primarily commercial and municipal properties. The site is bounded: to the north by municipal property with a small park, municipal water-supply tower, Fire Station #1, and the city-owned Mancuso Ice Arena; to the east by Evans Street; to the south by the southern parcel where a machine shop presently operates threading stainless-steel fasteners; and to the west by Tonawanda Creek. The site physiography is defined as a relatively flat, low flood plain along Tonawanda Creek. The stratigraphy is characterized by 2 to 8 feet of miscellaneous fill underlain by alluvial and glacial lake deposits.

All the remedial work in this effort, except the disposal of a 500-gallon tank, was performed around and under the existing concrete floor pad and foundation of the former Doehler Die-Casting Plant. A site plan detailing this area is included as Figure 1-3. The geometry of the pad is L-shaped with one segment oriented northeast-

southwest and a second segment perpendicular to it oriented northwest-southeast. A trenching program conducted for ODNY Inc. around the north, south, and west perimeter of the pad found contamination located around the northeast-southwest oriented segment. This area was identified for remediation. For ease and clarity during field operations and in this report, the portion of the pad which was the focus of work was treated as a single rectangular structure and locations referenced use this assumption, unless otherwise stated.

1.3 SUMMARY OF REMEDIAL WORK

The work in this phase involved further investigation of soils under the concrete floor pad by means of six test borings (Figure 1-3) advanced to the top of the water table. Two samples per boring were collected for chemical analysis. One sample of the concrete in contact with the underlying soils and one composite of the soils were taken.

Location of all remedial work performed on the site in this phase is on Figure 1-3. The remedial action involved the removal of soils from areas previously identified as contaminated and any in-ground structures encountered which represented potential sources of contamination. These structures included three underground storage tanks, two hydraulic lifts, yard piping and drainage tile, and a concrete-encased metal pipe. The primary contaminant of concern was petroleum hydrocarbons, the most likely source being two 10,200-gallon steel tanks which were excavated from beneath the northwest corner of the floor pad. In addition, a small quantity of soil was removed from a location along the north side of the floor pad which revealed elevated lead concentrations in a soil sample taken in a prior investigation.

The excavated soils were classified contaminated or non-contaminated in the field based upon organic vapor instrumentation readings, visual and olfactory assessment, and production of an oil sheen produced by a small sample placed in potable water. Soils classified as contaminated were stockpiled for further treatment at a protected staging area. Soils classified as non-contaminated were placed back into the excavation as fill. This operation was advanced to the top of the water table, generally between 6 to 8 feet below ground surface, as agreed to by the NYSDEC. All other structures and material removed were stockpiled in segregated staging areas for future characterization by

chemical analysis. Samples of the soils left in place were taken for chemical analysis upon reaching the field-determined limit of contamination. The excavations were backfilled and restored to approximate original grade using a combination of on-site and off-site clean fill. A 4-inch diameter well was installed in the tank excavation and sampled after completion of earthwork.

A complete discussion of all aspects of work conducted during this phase is contained in this report.

2.0
CONCRETE PAD INVESTIGATION

As requested by NYSDEC, a subsurface investigation of the soils underlying the interior section of the concrete pad was performed. Empire Soils Investigations, Inc. (ESI), of Hamburg, NY was contracted by WCCI to install six borings beneath the pad. Boring logs are presented in Appendix A.

The borings were located so that conditions could be better defined along the east side of the pad and on the north and east side of the northwest-southeast oriented segment. Boring locations are located on the boring logs as measured from the northeast corner of the pad and are represented in plan view on Figure 1-3.

The locations were first cored through the concrete using a portable core machine to remove a 6-inch diameter core, then advanced with 2.25-inch interior diameter hollow-stem augers from the soil surface to completion by a mobile drilling rig. Split-spoon samplers were used to collect soil samples in 2-foot intervals ahead of the augers. These samples were identified in the field by a WCCI geologist using the Unified Soil Classification System. At completion of the boring, the soil samples were composited for chemical analysis. Laboratory samples were identified using the boring location and depth from which they were collected. Appendix B provides a summary of all laboratory sample locations, descriptions, and analyses performed. The concrete core was sampled at each location from the bottom portion which was in contact with the underlying soils. The samples were taken using decontaminated, dedicated stainless-steel trowels and placed in laboratory-supplied containers. The test boring was then backfilled to ground surface with a portland cement grout. To prevent cross-contamination between boring locations, the down-hole drill tools were given an alconox wash and steam-cleaned prior to proceeding to the next location. All equipment was decontaminated in a similar way prior to demobilizing from the site.

Concrete pad thickness varied from 0.4 to 1.2 feet. The concrete pad was underlain by approximately 4 feet of coarse to fine sand and fine gravel with varying amounts of ash, cinders, slag, concrete fragments, and cobble-size rock pieces. Underlying the fill was

approximately 2 feet of silty sand above a unit of fine sand to sand and gravel. The natural sediments were apparently water-sorted and are interpreted as alluvial deposits. Groundwater levels were encountered from 6.0 to 7.9 feet below ground surface.

Split-spoon samples were monitored for organic vapors with an 11.7 eV HNu photo-ionizing detector. No elevated readings were noted in the samples. The only sensory signs of contamination noted were an odor at location B-2 from samples taken below 2.0 feet and an oil sheen on the groundwater in the split-spoon below 6.0 feet at this location.

3.0
REMEDIAL WORK

After review of the findings from the Quantitative Environmental Investigation, the recommended remediation of the soils was the removal of petroleum hydrocarbon contaminated soils from the site by means of excavating the areas along the northern and western perimeter of the concrete pad to the limit of their extent. The contaminated soils could then be treated or disposed of as appropriate. As a function of this excavation, any structures which were encountered and identified as potential sources of this contamination would be removed and disposed. WCCI formulated a Remedial Work Plan (July 1, 1992) to accomplish these objectives which was approved by the Client and the NYSDEC. WCCI contracted Soccio & Della Penna (S&D) of Batavia, NY to perform this work under WCCI field inspection. Remedial work areas are illustrated and identified on Figure 1-3. A log of the samples collected, locations, descriptions, and the analyses performed is presented in Appendix B. A summary of the waste generated as a function of the remedial work is on Table 3-1. The major points of the remediation included:

- Removal, cleaning, and off-site disposal of two 10,200-gallon underground storage tanks.
- Cleaning and off-site disposal of a 500-gallon underground storage tank.
- Excavation and stockpiling of petroleum hydrocarbon contaminated soil from the north and west perimeter of the concrete pad.
- Excavation and removal of a lead-contaminated buried pipe.
- Excavation and removal of two hydraulic lifts and pits.
- Installation of monitoring well MW-9 and sampling and testing of groundwater from MW-1, MW-7, MW-8, and MW-9.

3.1 UNDERGROUND STORAGE TANKS

The remediation effort involved the removal of three underground storage tanks, all of which had apparently contained petroleum fuel products. Two 10,200-gallon fuel oil storage tanks were discovered on the northern-most parcel as the result of the acquisition of a fire insurance construction plan of the Doehler Die-Casting Plant which was dated October 5, 1925. The plan indicated no other buried storage tanks on that parcel. A 500-gallon steel storage tank was encountered and excavated during the previous trenching investigation on the center parcel. The tank was removed in that investigation and staged on the ground surface prior to commencement of this remedial work.

3.1.1 Excavation and Removal

Based on review of the available plan, the excavation for the two 10,200-gallon buried tanks was begun at the northwest corner of the concrete floor pad and advanced eastward. The excavation was conducted by S&D using a track-mounted excavator. A 15 feet x 11 feet concrete piping pit was encountered below the floor pad approximately 16.5 feet east of the northwest corner. This pit exhibited stains and odors typical of petroleum contamination. Following pit demolition, the concrete was stockpiled on polyethylene ground sheeting and covered for later characterization. Two manways, which were entries to the two tanks, were located near the floor of the pit.

The tanks were oriented in an east-west direction lying in a common tank pit below. The excavation was performed to the concrete floor of the tank pit approximately 11.0 feet below ground surface. The excavation walls were cut to a 3:1 slope allowing access by tank removal personnel. Tank pit excavation dimensions were 70 x 55 feet at ground surface and the water level was 6.0 feet below ground surface. Miscellaneous steel and cast iron piping, steel soldier beams, and timber lagging were removed during excavation or was exposed in the pit walls. Most of these materials were stockpiled as contaminated following removal. Soils typically exhibited petroleum contamination below depth 5.5 feet and were stockpiled separately on polyethylene sheeting or in shallow, polyethylene-lined cells if too saturated to maintain a slope. Stockpiled soils were covered with plastic. An oil sheen and floating free-product was evident on the water in the excavation.

After uncovering the two tanks, Tim Walsh of the NYSDEC visited the site to inspect the remedial work. Subsequent to this visit, it was agreed upon by the NYSDEC and the Client that:

- All water and product in the tanks would be removed and disposed of in an appropriate manner
- The free-product on the excavation water and all surficial soils in contact with it would be cleaned to every reasonable extent
- A down-gradient test pit would be excavated to examine the groundwater for contamination
- A monitoring well would be installed in the central portion of the tank excavation and sampled for chemical analysis upon completion of remedial measures.

3.1.2 Post-Excavation Samples

Four post-excavation soil samples were taken at discrete locations from the north, east, south, and west walls of the tank excavation (see Figure 3-1). These samples were identified as PXS-4, PXS-5, PXS-6, and PXS-7. The samples were located in the central portion of the wall several feet above the water level. The purpose of the samples was to ascertain if the extent of the contamination had been reached and removed and if the free-product on the water surface had contaminated the soils. The samples were collected using decontaminated, dedicated stainless-steel trowels and placed in laboratory-supplied containers.

3.1.3 Cleaning and Disposal

Allwash of Syracuse, Inc. (ASI), was sub-contracted by S&D to clean the tanks and the excavation water, and to dispose of the liquid waste generated from the 10,200-gallon tanks at an appropriate facility.

3.1.3.1 10,200-Gallon Tanks

ASI pumped the contaminated water from the tanks to licensed waste hauling tankers and it was removed for off-site disposal. The tanks were then moved to ground surface and secured on polyethylene sheeting, which was impounded on all sides to contain spillage. Dry ice was introduced into the tanks to inert the atmosphere which was monitored with a combustible gas indicator to ensure a safe cutting environment. Tanks were inspected for any openings or damage other than manufactured accesses or vents and damage or cuts made to assist in removal. Both tanks appeared sound except for two rivets missing from the north tank. Manways were made with gas cut-off saws to allow access of men and equipment. ASI began to wash down the interior of the tanks from outside the manways using a high-pressure spray system. After an initial rinse, ASI personnel entered the tanks and continued to spray the interior and wipe it down using oil-absorbent pads until it was visually free of oily material. Any ponded wash/rinse water on the floor of the tank was collected by means of a sump pump and oil-absorbent boom. The tank exteriors were also sprayed to remove any residual oil-product. The liquid from these operations was pumped to drums.

On completion of tank cleaning, tanks were inspected visually and with an organic vapor detector. Tanks appeared clean with no elevated instrument readings noted. Tanks were then removed off-site on a trailer by S&D for disposal as scrap metal.

In conjunction with the tank cleaning, ASI also pumped all supernatant water from the drummed drill cuttings and the monitoring well development water, which was generated in the previous ODNY investigation, to a vacuum tanker for disposal with the liquid waste.

ASI and WCCI made at least four efforts to remove visible floating product from the tank excavation. This was done by means of oil-absorbent booms and pads placed on the water. The materials were emplaced for as long as 72 hours prior to removal. For removal, polyethylene sheeting was placed over part of the excavation walls and the ground surface, 55-gallon drums were staged on this protective ground cover and the oil-absorbent materials were removed directly from the water to the drums to contain spillage. The drums were sealed, labeled, and palletized to await sampling and

characterization.

3.1.3.2 500-Gallon Tank

A 500-gallon tank had previously been excavated and removed to ground surface during the ODNY investigation on the center parcel. This tank was cleaned by ASI and removed from the site as a part of this remedial program. ASI staged the tank on protective ground cover. The tank contained a very small quantity of free liquid which did not have to be removed before decontamination operations. The tank atmosphere was inerted with dry ice and monitored with a combustible gas indicator to confirm it was non-explosive. It was then cut with a gas cut-off saw to allow access of washing equipment. Due to the size of the tank, personnel entry was not required and ASI washed and rinsed the interior with high-pressure water spray. The pooled wash/rinse water and product were pumped into 55-gallon drums. The tank was also wiped down with oil-absorbent pads to remove remaining product. WCCI then inspected the tank visually and with an organic vapor detector. The tank appeared free of any petroleum product and no elevated instrument readings were noted. S&D then transported the tank off-site for disposal as scrap metal. The drummed liquid was labeled, sealed, and palletized and solids were combined with those in a drum generated in the 10,200-gallon tank removal.

3.1.4 Downgradient Test Pit

As per the NYSDEC request, the Client had a test pit constructed west of the excavation and northwest of Monitoring Well No. 7 (Figure 1-3). The test pit was located to be downgradient of the tanks and possibly the monitoring well location based upon groundwater elevations contour maps produced for the Quantitative Environmental Investigation. The test pit was excavated to a depth of 8.8-feet below ground surface and was left open for approximately 8 hours. Groundwater was noted at a depth of 7.0 feet and the pit remained open to a depth of 8.2 feet prior to backfilling. A discontinuous trace sheen was noted on the water surface within the initial 30 minutes of excavation, although no sheen was noted on inspection prior to closure. The test pit log is presented in Appendix C.

3.1.5 Tank Excavation Monitoring Well

In conjunction with the backfilling of the tank excavation, a 4-inch I.D. well, MW-9, was constructed in the center of the pit (Figure 1-3). This was accomplished by placing an 8-inch I.D. PVC pipe to the concrete floor and proceeding with backfilling to the ground surface. The pipe was then used as a temporary casing in which to construct the well. The well was built by placing screen and riser to the bottom of the hole. The annular space was filled with a sand pack which was measured progressively within the temporary casing as the casing was removed. The sand pack was brought to a height 1.1 feet above the top of the screen. Two feet of bentonite was placed above the sand pack and hydrated with deionized water to serve as a seal. The remaining annulus was filled with mortar to ground surface. Five feet of the 8-inch I.D. casing was left with 3 feet remaining above ground surface to serve as a protective surface casing. A concrete pad was constructed around the surface casing to stabilize it. Following completion, a locking J-cap was placed over both riser and surface casing and secured with padlocks. Well construction details are given in Appendix D.

3.1.6 Backfilling and Restoration

Following tank removal, an excavator was used to remove approximately 6 inches of the surficial soil from the excavation walls from water level to ground surface. This soil was stockpiled with the petroleum-contaminated soils. The excavation was backfilled using a combination of on-site and off-site non-contaminated fill. As described above, an 8-inch pipe was placed vertically in the center and secured with some off-site fill at its base. Polyethylene sheeting was placed around the perimeter of the tank excavation walls and an initial lift of approximately 2 feet of crushed concrete from the excavated floor pad was placed. The purpose of the sheeting was to allow the rapid identification of the extent of excavation and not allow the contamination of clean fill should the post-excavation samples exhibit contamination. The remainder was filled with off-site sand and gravel to original ground surface. The material was compacted with the bucket of the excavator as it was placed.

3.2 TRENCH EXCAVATIONS

The trenching program carried out in the Quantitative Environmental Investigation revealed that soils around the north and west sides of the concrete floor pad exhibited some elevated petroleum hydrocarbon levels. The Work Plan specified the remedial approach was to re-excavate these trenches to a depth no deeper than the water table. Any soil judged in the field to be non-contaminated would be placed back into the excavation. Those soils judged to have petroleum hydrocarbon contamination would be stockpiled to await disposal or treatment. This removal would be pursued in all directions from the perimeter of the floor pad until the limit of contamination was reached. The field methods to determine this classification involved monitoring with organic vapor instrumentation, visual and olfactory observations, and the production of an oil sheen from a small sample of soil placed in a cup of potable water. A modification to the Work Plan was made in the field to follow any piping which exhibited petroleum hydrocarbon contamination to its extent.

3.2.1 Excavation and Stockpiling

The trench excavated along the north edge of the concrete floor pad from the northeast to the northwest corner (area of the Quantitative Environmental Investigation Trench #4) covered approximately 132 linear feet and 1620 square feet (Figure 1-3). Two areas required additional excavation due to elevated levels. A linear segment of 18 feet required the excavation of 4 feet of soils to the south and a linear segment of 24.5 feet involved the removal of soils extending as far as 32 feet north. The latter cut was halted because it was inadvertently conducted across the site property line. The depth of these cuts varied from 6 to 8 feet below ground surface, depending on the surface of the groundwater. Some metal piping and drain tile of various size diameters were encountered in the excavation, but this piping did not exhibit obvious signs of petroleum contamination and was only removed if surrounding soils were excavated.

The general stratigraphy was noted as 6 feet of orange, gray, brown, and black, silty coarse to fine sand fill overlying olive, fine sand and silt. There was some sanitary landfill-type waste consisting of bottles, cans, and glass, as well as construction debris and ash in the fill. This material was not removed if it did not exhibit any petroleum

contamination. The olive-colored soil above the water generally had the highest concentration of petroleum.

The trench excavated along the west edge the concrete floor pad from the southwest to the northwest corner (area of the Quantitative Investigation Trench #3) covered approximately 240 linear feet and 16,000 square feet (Figure 1-3). The west side of the tank excavation extended into, but was not included as a part of this trench. The first segment extending 55 feet north of the southwest corner showed no signs of contamination. The remaining portion of the trench required additional excavation both west and east of the concrete pad due to signs of petroleum hydrocarbons in the soil. The west trench was overexcavated to a maximum of 119 feet east (interior of the concrete pad) with a typical cut eastward of 70 feet from the west edge of concrete. The overcut was pursued on the west side of the trench to a maximum of 30 feet with a typical cut of 20 feet west. Numerous lines of steel and iron piping and drain tile were encountered in the west trench cuts. Some lines exhibited elevated instrumentation readings over some sections, mostly on the west wall of the trench. Those lines were followed to the extent of the elevated readings or removed in their entirety. Many of the lines in the east wall of the trench were removed even though they did not exhibit signs of elevated organic vapor levels, as a result of the size of the overcut.

General stratigraphy across the west trench was noted as 2 to 4 feet of brown to black, silty sand and gravel fill with some debris overlying 1 to 2 feet of brown to orange-brown, silty sand with varying quantity of clay then 1 to 2 feet of olive, silty fine sand and silt. The water table was encountered between 6 to 7.5 feet below ground surface. As in the north trench, the olive, silty fine sand stratum just above the water table consistently appeared to have the elevated petroleum content. The majority of this stratum which exhibited high petroleum hydrocarbon concentration was removed with the exception of cases when it fingered-out to a layer 6 inches or less above the water table. One area located approximately 110 to 120 feet north and 20 to 25 feet west of the southwest corner of the concrete pad within the orange-brown, silty sand exhibited elevated readings on the HNu organic vapor meter without sensory indication of petroleum. Due to suspicion of volatile organic contamination, a representative composite sample of these soils was collected. The extent of this material was excavated and segregated from the petroleum hydrocarbon soils until laboratory results were

known.

All soils which were identified as containing elevated levels of petroleum hydrocarbons were stockpiled on the west side of the site. The soils were placed on polyethylene ground sheeting and covered with polyethylene at the end of every work day. Some soils were too saturated to maintain an angle of repose which would allow such stockpiling. Trenches 2 to 4 feet deep were cut and lined with polyethylene to contain these soils, which were also covered at the completion of the work day. The soils which had exhibited above background instrument readings without other signs of petroleum contamination were placed on a separate stockpile with polyethylene ground sheet and cover. Concrete, piping, and other metal/debris were segregated from these soils. All metal and piping were assumed contaminated and stockpiled on and covered with polyethylene to await further characterization. Visibly stained concrete was likewise segregated and stockpiled apart from the "clean" concrete which was removed and to be re-used as fill.

3.2.2 Post-Excavation Samples

Upon reaching the limit of contamination, 10 post-excavation samples were collected from 14 discrete locations in the excavation wall. Samples were identified as PXS-1 to 3 and PXS-8 to 14. Figure 3-1 gives the sample locations. These samples were chosen to represent the margins of the excavation in the strata in which the petroleum was believed to be contained. If there was some evidence that elevated petroleum hydrocarbons might still exist in these strata, a discrete sample was collected so that the location of contaminated material could be identified if the laboratory analysis indicated that levels were unacceptable. The composite samples were taken from locations where field personnel had a high-degree of confidence that contamination had been removed. This allowed a broader representation of strata from a limited number of samples. All samples were collected using dedicated stainless-steel trowels which had been decontaminated prior to use as directed in the Work Plan and placed in laboratory-supplied containers for shipment.

3.2.3 Backfill and Restoration

After the completion of excavation and sampling, the trenches and overcuts were backfilled using non-contaminated on-site and clean off-site fill. Polyethylene sheeting was placed in the bottom and along the walls of the trench, then fill was placed using an excavator and compacted by means of the machine's bucket. The cuts were restored to the approximate elevation of original grade.

3.3 LEAD-CONTAMINATED SOIL

The Quantitative Environmental Investigation soil sample T-4 contained leachable lead in sufficient quantity to characterize it as a hazardous waste. Based on this finding, the Remedial Work Plan required that the soil from this area be drummed and sampled to diminish the potential that this soil remain on-site. The area was identified in the field and a surface grab sample was collected (LSG-1). The area was then excavated to an approximate extent of 2 x 3 x 1.5 feet by a backhoe and the removed soils were drummed. A composite sample was taken of three walls and the floor of the pit (LCS-1), and a separate composite sample was taken of the drummed material (LWS-1). Appendix B contains sample locations and descriptions. All samples were collected using dedicated, decontaminated stainless-steel equipment and placed in laboratory-supplied containers.

3.4 BURIED PIPE EXCAVATION

The Quantitative Environmental Investigation exposed a section of metal pipe along the south edge of the concrete floor pad which was described as having a sludge-like residue. This pipe was located and excavated in its entirety during the remedial effort. The pipe, which was 52 feet in length and encased in concrete, ran east from the southwest corner of the pad. The pipe was badly corroded and contained small quantities of water and sludge. The pipe was broken into smaller sections to aid in handling and was removed along with the concrete-encasement. Any adjacent soil which was stained bright-orange was also excavated. After removal, these materials were placed on and covered with polyethylene sheeting to await further characterization.

3.5 HYDRAULIC LIFTS

The Quantitative Environmental Investigation found a hydraulic lift in a concrete pit in the approximate center of the west trench about 150 feet north of the southwest corner of the floor slab. The excavation conducted in this field work re-opened that pit and also discovered an additional pit 41 feet north from this location along the edge of the concrete slab. Each pit contained two telescoping hydraulic jacks which were housed in a concrete walled and floored pit with approximate dimensions of 10 x 5 x 3 feet. The lifts contained some water and oil and the pits and surrounding fill showed some black staining and exhibited obviously elevated petroleum hydrocarbon concentrations. The extent of these concentrations and the quantity of oil in the lifts was greater in the south lift pit. It was suspected that the oil was hydraulic oil; therefore the lifts, concrete, and associated fill removed from these excavations were segregated from other stockpiled material. The stockpiles were lined and covered with polyethylene sheeting. A sample of the liquid contained in the south lifts was collected (HJL-2) and sent for laboratory analysis. In addition, a sample of the soils (HJS-2) excavated from the lifts was collected for analysis. Both samples were collected with dedicated decontaminated equipment and shipped in laboratory-supplied containers.

3.6 WELL DEVELOPMENT AND SAMPLING

The City of Batavia agreed with the NYSDEC to sample the tank excavation well MW-9. In addition, the City also sampled one adjacent upgradient and two downgradient wells to further evaluate current site conditions. These wells were MW-1, MW-7, and MW-8. Prior to sampling, the wells were developed to assure representation of formation groundwater conditions. Well development data is presented in Table 3-2. As MW-9 had not been previously sampled, a greater volume of water was removed from this well. WCCI personnel took water level and depth of well measurements on September 8, 1992, and purged at least 2.9 well volumes from each well. This purge also served to establish the re-charge rate of the wells. On September 9, another round of water level measurements was taken and further development of MW-9 was continued. The final purging of the wells was conducted on September 10, followed by the sampling event. A total of 16.1 well volumes was removed from MW-9 in these three days and at least 7.9 well volumes from the pre-existing wells. Due to equipment failure, pH and

conductivity could not be monitored during the purging process. Samples from wells MW-1, MW-7, and MW-8 were collected with dedicated Teflon™ bailers. Well MW-9 was sampled with a decontaminated PVC bailer. All samples were collected in laboratory-supplied containers.

3.7 DOCUMENTATION

As specified in the Remedial Work Plan, photographic and video documentation of all field activities was maintained throughout the remedial work. This documentation was designed to illustrate conditions encountered and follow work progress during the length of the program. Appendix E provides a representative sample of photographic documentation. All photographs and video tape have been labeled and filed for archival information.

4.0
LABORATORY ANALYSIS

Samples were collected during the supplemental remedial investigation of the concrete pad area to further identify conditions in the underlying soils. Samples were collected as a part of the remedial work to determine the effectiveness of the work, the necessity of any additional remediation, and to characterize the removed material for treatability and disposal. Chemical analyses of all samples, except those for waste characterization samples, were performed by Nytest Environmental, Inc. (NEI) of Port Washington, NY, a US EPA-CLP and NYSDEC-certified laboratory (NY certification No. 10195). Waste characterization samples were analyzed by Antech Ltd. of Export, PA. Table 4-1 lists the parameters for which each sample was analyzed. Table 4-2 summarizes the analytical methods used for analyses by the contracted labs.

WCCI performed data quality reviews of the laboratory reported results. The Data Quality Review Memoranda are included in Appendix F. Based upon the data quality review, data were determined to be valid, and were accepted with minor qualification noted in the data summary tables. The laboratory data summary sheets (Form 1s) as provided by NEI are presented in Appendix G and the laboratory data waste characterization sheets as provided by Antech Ltd. are presented in Appendix H. Analytical data is summarized in Tables 4-3 to 4-7. The following sections summarize these results and compare reported results to appropriate federal and/or state standards.

4.1 CONCRETE PAD BORING SAMPLES

A total of 12 samples were analyzed from the 6 concrete pad boring locations (B-1 to B-6). One sample of the concrete pad and one composite soil sample were collected from each boring location. All samples were analyzed for hazardous waste characteristics including full TCLP parameters, corrosivity, ignitability, and reactivity. In addition, composite soil samples were analyzed for total BTEX, TOX, and percent moisture. Results of analyses are summarized on Table 4-3. No sample results exceeded the respective hazardous waste criterion. BTEX was not detected in the soil samples, and all TOX results were at or below 0.074 ppm.

4.2 UST POST-EXCAVATION SAMPLES

Four samples (PXS-4, PXS-5, PXS-6, and PXS-7) were collected from the walls of the excavation surrounding the two 10,200-gallon tanks. The samples were analyzed for the following hazardous waste characteristics: TCLP- BTEX, TCLP-BNs, and TCLP-lead. Results of analyses are summarized on Table 4-4. No BTEX or BNs were detected and leachable lead results were at or below 0.107 mg/l. The maximum allowable contaminant concentration of leachable lead is 5.0 mg/l (40 CFR part 261.24).

4.3 TRENCH EXCAVATION SAMPLES

Ten samples (PXS-1 to PXS-3 and PXS-8 to PXS-14) from 14 discrete sample locations were analyzed from the trench excavations for the following hazardous waste characteristics: TCLP-BTEX, TCLP-BNs, and TCLP-lead. Results of analyses are summarized on Table 4-4. All parameters were either not detected, or were reported in concentrations below their respective regulatory criteria. A composite sample (ESS-1) was also collected from the west trench overcut in the area of suspected volatile organic contamination and was analyzed for TCL- VOCs and BNAs. Results of the analyses are summarized on Table 4-5. Only di-n-butylphthalate, a common laboratory artifact, was detected. Currently, there are no regulatory levels set for this contaminant in soils.

4.4 LEAD-CONTAMINATED SOILS

Three samples (LSG-1, LCS-1, and LWS-1) collected from the area previously showing lead contamination were analyzed for the following hazardous waste characteristics: TCLP-BTEX, TCLP-BNs, and TCLP-lead. Results of the analyses are presented in Table 4-4. All TCLP-BTEX and TCLP-BNs were non-detected and lead results were at or below 0.222 mg/l. The TCLP maximum allowable concentration for lead is 5.0 mg/l.

4.5 HYDRAULIC LIFT SLUDGE AND SOILS

One sample (HJL-2) of the liquid contained in the south hydraulic pit lifts was collected

and analyzed for TCL-PCBs and TCLP-lead. A composite sample (HJS-2) of the suspected hydraulic oil-contaminated soil from the vicinity of the lift excavations was analyzed for TCLP-BNs. Results of the analyses are summarized on Table 4-5. There were no PCBs or BNs detected in HJL-2 or HJS-2, respectively. Leachable lead was detected at 3.33 mg/l in HJL-2, below the TCLP maximum allowable concentration for lead of 5.0 mg/l.

4.6 WASTE CLASSIFICATION ANALYSIS

A total of four composite samples (WCS-1, WCS-2, WCS-3, WCS-4) of stockpiled and drummed material were analyzed for waste disposal characterization. The laboratory analyses of WCS-1, WCS-2, and WCS-3 included: full TCLP parameters and TCLP-nickel, TCL-PCBs, total cyanide, total petroleum hydrocarbons (TPHC), reactive sulfide, ignitability, and pH. In addition, the liquid waste (WCS-4) from the 500-gallon tank wash/rinse was fingerprinted for the type of hydrocarbon. Results of the analyses are summarized on Table 4-6. Based on the laboratory results provided, all the waste is considered non-hazardous except for the buried, concrete-encased metal pipe waste (WCS-2), for which TCLP lead was detected at 60.0 mg/l (TCLP maximum allowable concentration is 5.0 mg/l). The primary hydrocarbon detected in WCS-4 was unleaded gasoline at a concentration of 14,000 ug/l. A summary of stockpiled and drummed waste generated during this phase of remedial work is included in Table 3-1. Analytical results of the four waste characterization samples and associated QC data are reported in Appendix G.

4.7 GROUNDWATER SAMPLES

Four groundwater samples (MW-1-92, MW-7-92, MW-8-92, and MW-9-92) and one field duplicate sample (MW-QC) were collected from site monitoring wells MW-1, MW-7, MW-8, and MW-9 and were analyzed for purgeable aromatic hydrocarbons and PAHs. MW-QC was a quality control duplicate collected from monitoring well MW-9. A trip blank sample (2-40 ml VOC vials with contaminant-free water) was submitted for analysis to identify the potential for cross-contamination of samples during shipment. Results of analyses are reported on Table 4-7. The only purgeable aromatic hydrocarbon detected was toluene and PAHs detected were fluoranthene and pyrene.

Toluene levels were detected in each of the four wells in trace concentrations ($\leq$ 1.8 μg/l). Traces of fluoranthene (0.3 μg/l) and pyrene (0.6 μg/l) were detected in MW-9. Toluene, fluoranthene, and pyrene concentrations in the groundwater were all below their respective New York Groundwater Quality Standards (GQS) and/or guidance values (see Table 4-7).

5.0
TREATABILITY STUDY

It became apparent during the remediation that off-site disposal was impractical considering the quantity of petroleum hydrocarbon contaminated soils being excavated. Therefore, prior to completion, a treatability study was initiated with approval of the Client to investigate the viability of on-site bioremediation. WCCI sub-contracted Terra Systems, Inc. to perform a treatability study of the petroleum hydrocarbon contaminated soils. The study determined the material to be amenable to biotreatment. A copy of this study is included in this report as Appendix I.

6.0
SUMMARY AND CONCLUSIONS

The Remedial Work Plan was conducted as written except for some minor modifications. The modifications to the scope included the cleaning and disposal of the three underground storage tanks, the additional tasks related to the tank excavation requested by the NYSDEC, and some minor additional excavation to investigate yard piping. Prior to beginning any additional work, WCCI first made recommendation of this work to the City and received approval to proceed. The NYSDEC was also apprised of job progress and their input was invited as appropriate.

The major components of the work performed at the Site during this phase includes as follows:

- Additional investigation of the soils underlying the concrete pad above the water table
- The removal, cleaning, and off-site disposal (as scrap metal) of two 10,200-gallon underground storage tanks
- The cleaning and off-site disposal (as scrap metal) of a 500-gallon underground storage tank
- The removal of an area of previously identified, lead-contaminated soils
- The removal of a lead-contaminated, concrete-encased metal pipe
- The excavation of approximately 1,700 cubic yards of petroleum contaminated soils from the area around and beneath the concrete pad
- The installation of an additional groundwater monitoring well (MW-9) and the sampling of the well and three additional monitoring wells

Concrete Pad Investigation

The additional investigation of the soils under the interior of the concrete pad and the concrete in contact with those soils did not indicate or identify additional contamination of concern based upon current regulations. No further action is recommended for soils in this area.

UST Removal

Three underground tanks (two 10,200 gallon and one 500 gallon capacity) were removed along with soil showing evidence of petroleum hydrocarbon contamination. Post-excavation samples from the tank excavation did not contain detectable TCLP-BTEX or TCLP-BN organics. TCLP-lead concentrations were well below the 5.0 mg/l regulatory threshold. No further action is recommended for soils in this area.

Trench Excavation

Trench excavations were conducted to remove soils along the northern and western margins of the former Doehler Die-Casting building foundation, including the areas surrounding two former hydraulic lift pits. Post-excavation soil samples were analyzed by TCLP for BTEX, BNA, and lead. All parameters were well below their respective regulatory criteria. No further action is recommended for soils in this area.

Lead-Contamination Soils

A small volume of lead contaminated soil was removed from the northwest corner of the former building foundation. Post-excavation sampling by TCLP for BTEX, BNs, and lead indicated that material remaining after excavation were below regulatory criteria. Additional excavation was performed around this area to remove petroleum hydrocarbon contaminated soil, as part of the trench excavation activities.

Waste Classification

Results of waste classification analyses indicated that all stockpiled and drummed waste

would be classified as non-hazardous, with the exception of a buried concrete encased metal pipe, which contained leachable lead in excess of the regulatory criterion.

Groundwater Quality

Four wells were analyzed for purgeable aromatics and polynuclear aromatic hydrocarbons. All parameters were either not detected, or detected at concentrations below NYS groundwater quality standards and guidelines. After validation of the groundwater sample analytical results, WCCI contacted Peter Miller of NYSDEC Region 8 to discuss the need for any further action. Mr. Miller stated that no further action would be required on the groundwater with regard to petroleum contamination.

Treatability Study

The findings of the bioremediation treatability study indicate that the primary constituent detected in the petroleum hydrocarbon contaminated soils was diesel or fuel oil #2. The diesel contaminants present were biodegradable in the landfarming biodegradation pilot study performed on samples of the soils in the laboratory. The concentrations of total petroleum hydrocarbons (TPH) were reduced by 83% in the nutrient-amended treatment over the 6 weeks that the study ran. The TPH concentrations would be expected to decrease further if studies had been continued over a longer time period. The concentrations of TPH which persisted to the end of the pilot study would suggest that using landfarming for remediation of the site soils would require a period longer than 8 weeks. WCCI recommends that landfarming be applied to the petroleum hydrocarbon contaminated soils on the site.

Waste Disposal

The waste generated at the site, except for the above mentioned soils, has been analyzed to determine the proper waste classification and disposition. WCCI will complete bid specifications for the client for final disposition of the waste.

Based on the waste classification analysis, all wastes generated at the site are RCRA non-hazardous with one exception. The metal-residue concrete-encased metal pipe and

the associated concrete and soils exhibit the characteristics of toxicity due to exceedance of the regulatory limit for leachable lead. The stockpile of yard piping and other excavated metal can be sold to a reclamation facility as mixed scrap metal.

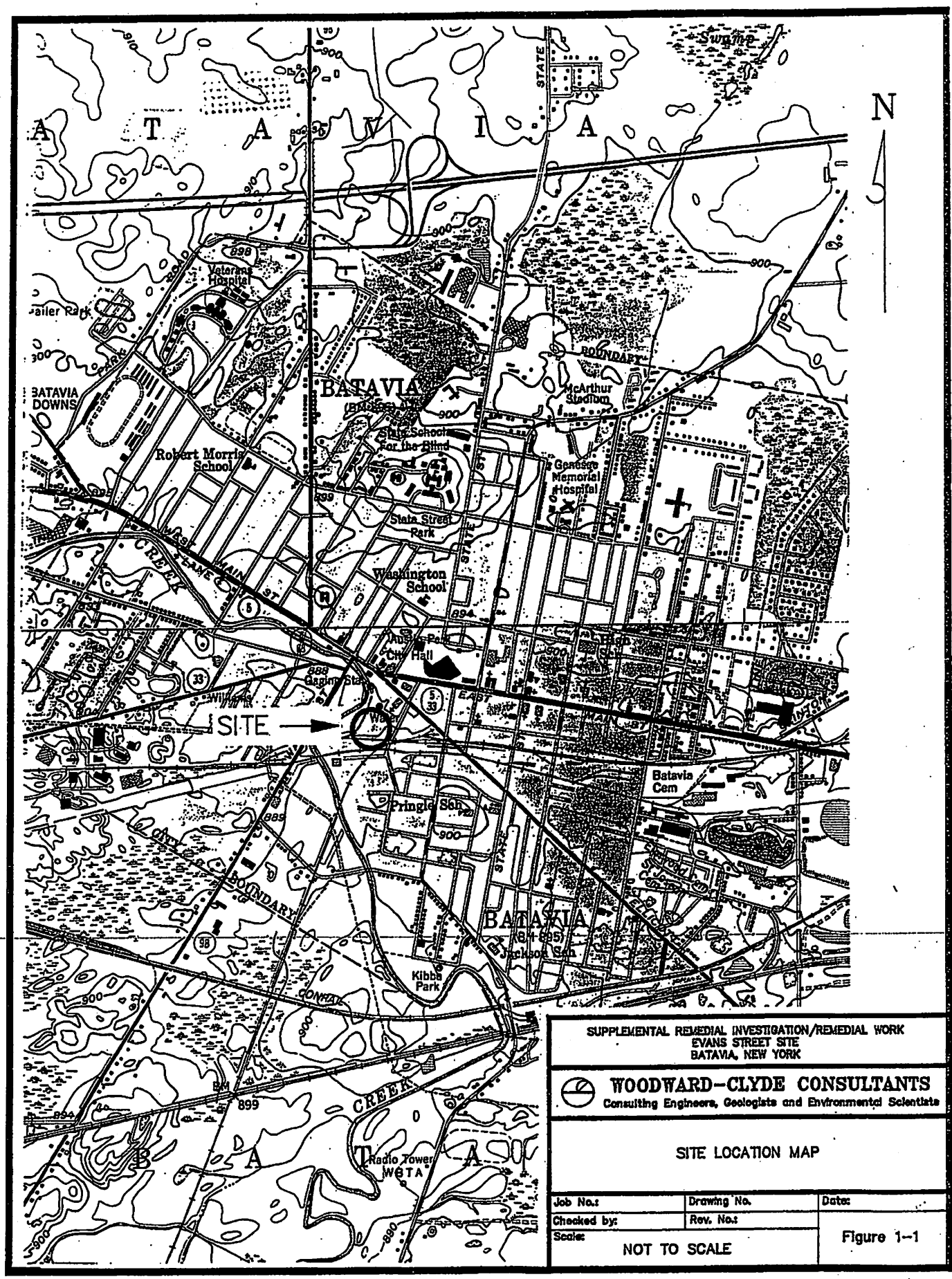
All wastes will be disposed of at appropriately-licensed and permitted facilities.

7.0
LIMITATIONS

WCCI's work is in accordance with our understanding of professional practice and environmental standards existing at the time work was performed. Professional judgements presented are based on our evaluation of available information regarding site conditions, site history, and the technical information gathered in the supplemental investigation of conditions beneath the concrete pad. Our analyses, interpretations, and judgements rendered are consistent with professional standards of care and skill ordinarily exercised by the consulting community and reflect the degree of conservatism WCCI deems proper for this project.

The information used in this report includes results from soil, groundwater, and waste analyses. WCCI has endeavored to collect samples which are representative of site conditions. However, samples collected can only represent a portion of the site conditions. It is assumed that the reported results are representative of the general site conditions.

The extent and effectiveness of the remedial work performed on the site is limited to those areas and parameters which have been defined in the approved remedial work plan (July 1, 1992) and this report.

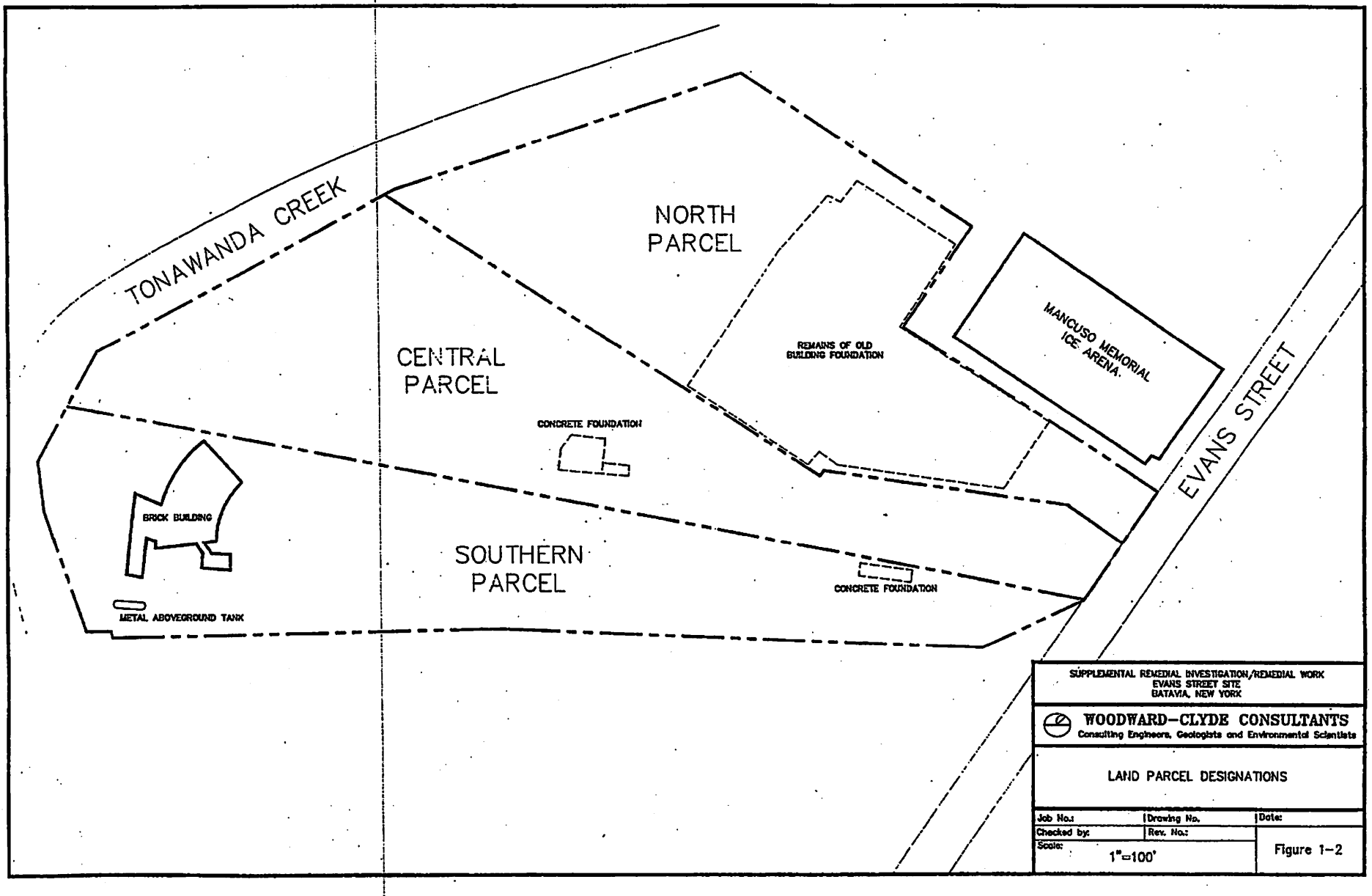


SUPPLEMENTAL REMEDIAL INVESTIGATION/REMEDIAL WORK
EVANS STREET SITE
BATAVIA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists

SITE LOCATION MAP

Job No.:	Drawing No.	Date:
Checked by:	Rev. No.:	
Scale: NOT TO SCALE		Figure 1-1

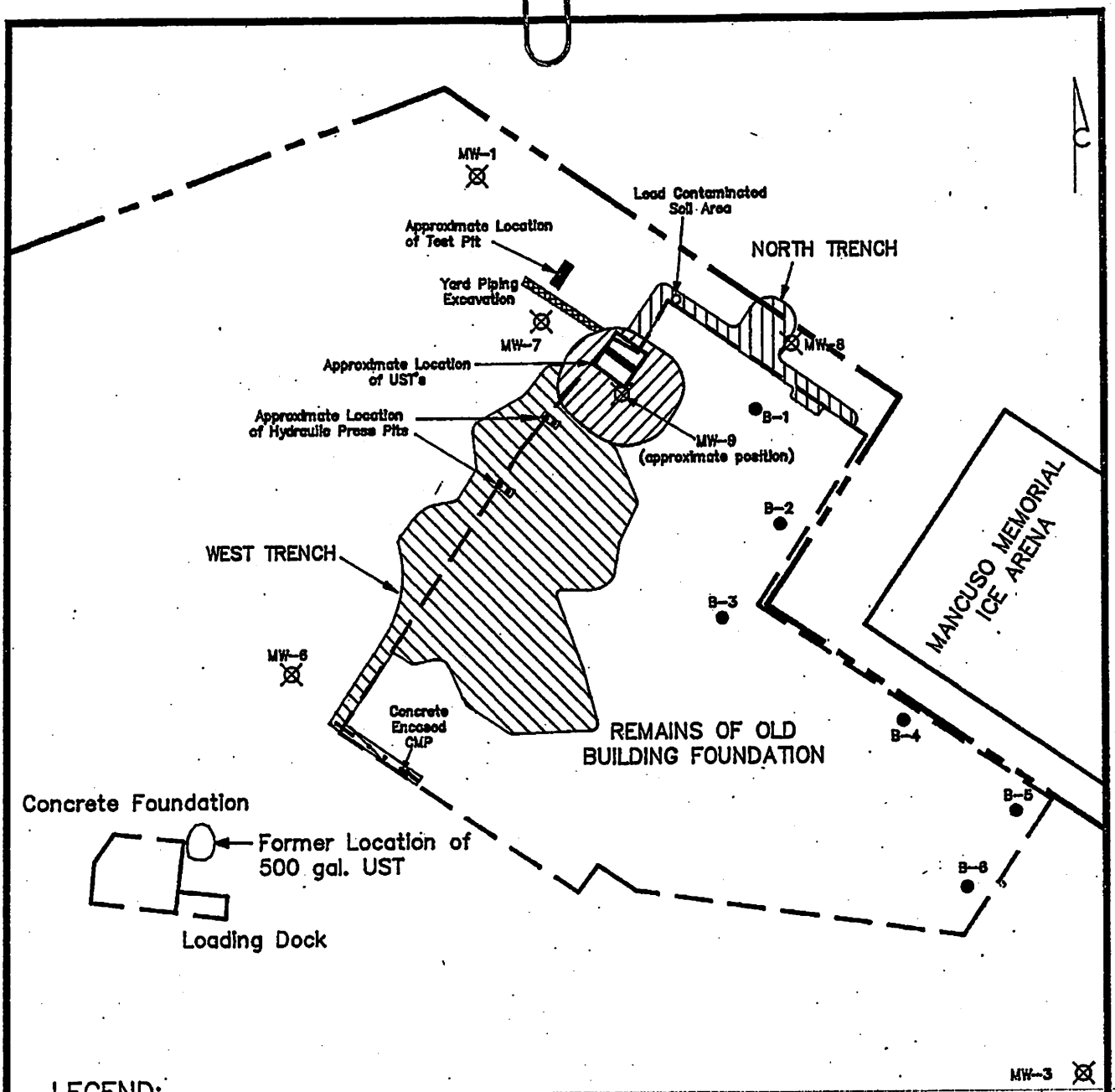


SUPPLEMENTAL REMEDIAL INVESTIGATION/REMEDIAL WORK
EVANS STREET SITE
BATAVIA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists

LAND PARCEL DESIGNATIONS

Job No.:	Drawing No.	Date:
Checked by:	Rev. No.:	
Scale: 1"=100'		Figure 1-2



LEGEND:

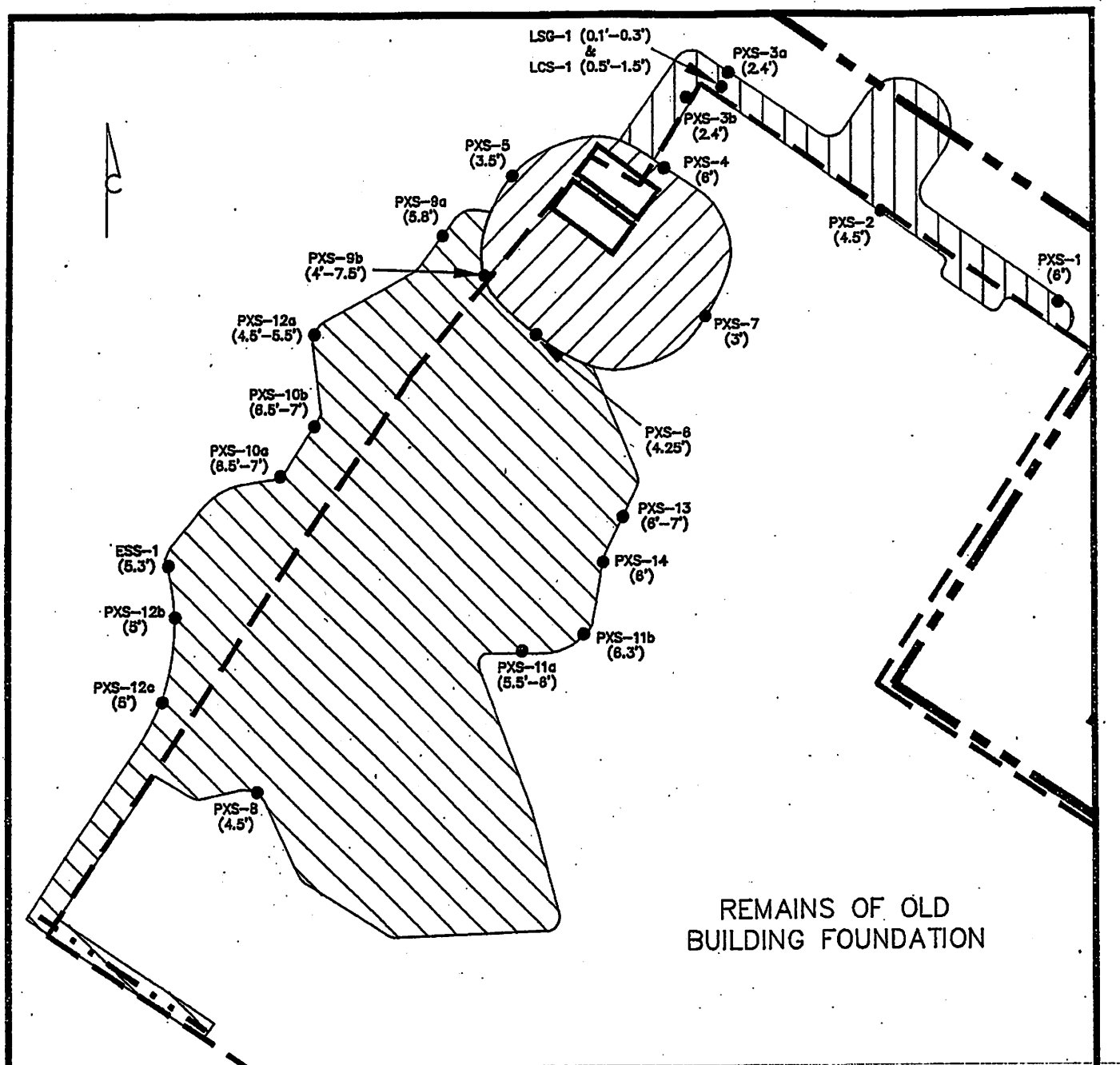
- Soil Boring Location
- Monitoring Well Location
- Lead Contaminated Soil Excavation
- West Trench Excavation
- Tank Excavation
- North Trench Excavation
- Down Gradient Test Pit

SUPPLEMENTAL REMEDIAL INVESTIGATION/REMEDIAL WORK
EVANS STREET SITE
BATAVIA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists

SITE PLAN

Job No.: 9204120	Drawing No.	Date: 28OCT92
Checked by: DPF	Rev. No.:	FIGURE 1-3
Scale: 0 25 50 75 100 FEET		



LEGEND:

- West Trench Excavation
- Tank Excavation
- North Trench Excavation
- PXS-8 (4.5') — Post-excavation sampling location. Lower case letter designation, if present, indicates that sample was included in a composite.

SUPPLEMENTAL REMEDIAL INVESTIGATION/REMEDIAL WORK
EVANS STREET SITE
BATAVIA, NEW YORK

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists

POST-EXCAVATION SOIL SAMPLING LOCATIONS

Job No.: 92C4120	Drawing No.	Date: 28OCT92
Checked by: DPF	Rev. No.:	Figure 3-1
Scale: 0 25 FEET 50		

MRB GROUP, P.C.
2480 Browncroft Blvd.
ROCHESTER, NY 14625

(716) 381-9250

1995 | JOB NO. 070005

TO Mr. Jay Gsell, County Manager
Genesee County Office Bldg. 1
Batavia, New York 14020

Jay Gsell

RE: Phase I Environmental Assessment

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
2	April, 95		Phase I Environmental Site Assessment Reports
			Bldg unoccupied if requested - demolition rebate timing identification & confirmation Phase II

MAY 1995

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☒ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS Please call if you have any questions in this regard.

Thank you,

COPY TO File

SIGNED: Michael A. Simon

If enclosures are not as noted, kindly notify us at once.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SUBJECT PROPERTY:

ENGINE HOUSE RESTAURANT
1-17 WEST MAIN STREET

TAX ACCOUNT NUMBERS:

84.12-4-13.1
84.12-4-3.0

CITY OF BATAVIA
GENESEE COUNTY, NEW YORK

JOB NUMBER: 070005
DATE: APRIL, 1995

PREPARED FOR:

GENESEE COUNTY

PREPARED BY:

MRB GROUP
ENGINEERING, ARCHITECTURE,
SURVEYING, P.C.
2480 BROWNCROFT BOULEVARD
ROCHESTER, NY 14625

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ACRONYMS AND ABBREVIATIONS

ACM	-	Asbestos Containing Material
ASTM	-	American Society of Testing Materials
CBS	-	NYSDEC Chemical Bulk Storage Tanks
CERCLIS	-	Federal Comprehensive Environmental Response Compensation and Liability Information System List
DEC	-	Department of Environmental Conservation (New York State)
EMC	-	Monroe County Environmental Management Council Sites
ERNS	-	Federal Emergency Response Notification System List
HWDS	-	NYSDEC Inactive Hazardous Waste Disposal Sites
LST	-	NYSDEC Leaking Storage Tanks
NPL	-	Federal National Priorities List
PCB	-	Polychlorinated Biphenyls
PBS	-	NYSDEC Petroleum Bulk Storage Tanks
RCRA TSD	-	Federal Resource Conservation and Recovery Act. Treatment Storage and Disposal Facilities List
RCRA-LG RCRA-SG	-	Federal Resource Conservation and Recovery Act Generator List
SCS	-	Soil Conservation Service
SWF	-	NYSDEC Solid Waste Facility Register
USDA	-	United States Department of Agriculture
USGS	-	United States Geological Service

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

1. EXECUTIVE SUMMARY

The subject property consists of two parcels located on the south side of West Main Street at the intersection of West Main and Ellicott Streets. The west parcel is 1.4 acres in size and is improved with a 17,300± square foot building and associated parking. The building was originally constructed in 1896±. The east parcel is currently vacant/parking lot and is a portion of a larger parcel that was formerly a box factory. A review of aerial photographs from 1954 and 1963 as well as a series of Sanborn Maps between 1884-1968 indicates the subject property and surrounding area was predominantly a mix of municipal, commercial and industrial uses which has developed into an area of mixed commercial and municipal uses with several residential homes to the southwest of the subject property, across Tonawanda Creek.

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

From a site visit and a review of the USGS topographic map of the area, the subject property can be described as gently sloping from northeast to southwest towards Tonawanda Creek.

The site falls into the Palmyra gravely loam soil classification. Soil borings completed in January of 1994 indicated that the site contained 5-13 feet of fill over a glacial fill and outwash material. The origin or time of the fill material is not known. The soil boring report did not outline the presence of any contaminated material during boring operations.

The adjoining properties were observed to be as follows:

North - Main Street - Municipal & Government Buildings
South - Tonawanda Creek - Residential/Vacant
East - Commercial Office Building
West - Municipal Sewage Pump Station

An inspection of the building on the west parcel revealed several areas that appear to warrant further investigation (Phase II) at this time.

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

Suspect Asbestos Containing Material (SACM)

The following areas contained SACM.

- Ballroom - Ceiling tiles.
- Bar - Floor tiles and mastic.
- Second Floor rooms on north side of building - floor tiles, mastic, ceiling tiles
- Second Floor Service Kitchen - Floor tiles and mastic.

Polychlorinated Biphenyls (PCB's)

The following may contain PCB's.

- Transformers associated with the 400 and/or 800 AMP service panels located in the following:
  - o First floor utility room off of Ballroom.
  - o First floor utility room on north side of building off the kitchen.
  - o Second floor maintenance workshop, southwest portion of building.
- Fluorescent light ballast located throughout the building.

Storage Tanks

Past uses of the building included a Fire Station and Highway Garage. The following areas of the parcel reportedly had underground fuel storage tanks associated with them. Their disposition is unknown.

- Northwest corner of building.
- East side of building near ballroom.

There were also several fill ports/vents in a walk-in cooler off the kitchen. The disposition or use of these vent pipes are unknown.

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

Lead Base Paint

All painted surfaces of the building prior to 1978 may contain lead based paint. One area of particular concern is a room located on the second floor north side of the building in which the door and window trim is cracked and peeling.

Further testing is recommended for suspect environmental concerns.

A review of all available information regarding the east parcel, as well as an on-site inspection did not reveal any apparent environmental concerns.

Environmental record sources were reviewed for the subject property and its surroundings. The property to the south of the subject property is the former Doehler Jarvis Corporation. The site had a number of environmental concerns including contaminated soils and groundwater. After several years of remediation and testing, the site has been delisted by N.Y.S.D.E.C. and no further action appears to be required at this time. Correspondence in this regard from the D.E.C. is included as an attachment to this report.

2. INTRODUCTION

2.1 OBJECTIVE

The objective of this Phase I Environmental Site Assessment is to identify recognized environmental conditions on the subject property. Recognized environmental conditions include the presence or likely presence of any hazardous substances or petroleum products on the subject property under conditions that indicate an existing release, a past release, or a material threat of a release of these substances into structures, groundwater, surface water or onto the ground surface of the subject property. The source of the recognized environmental conditions may be within the boundaries of the subject property, on adjacent properties or from other sites within the area.

2.2 SCOPE OF WORK

This Phase I Environmental Site Assessment is completed in accordance with ASTM E1527-93.

2.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The conclusion drawn within this environmental site assessment is based upon information obtained during the course of research of the subject property and its surroundings as described within the following sections of the report. Sampling and testing of materials from the subject property, or others, for contamination is generally not included within the scope of a Phase I Environmental Site Assessment.

The lack of any visual identification of a recognized environmental condition does not conclusively represent the absence of such a condition. However, the interpretation of the results of the research conducted should provide an accurate account of any recognized environmental conditions which may impact the subject property.

2.4 METHODOLOGY

The subject property is reviewed for recognized environmental conditions using the following methods and sources of information.

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

A site reconnaissance of the subject property is conducted to identify signs of contamination which may be visible on the site. While conducting the site reconnaissance, adjoining properties were observed to determine whether any obvious sources of contamination were present.

Federal, State and local environmental record sources are reviewed to obtain information as to the location and description of known waste sites on or within the area of the subject property. These record sources are listed in Section 4.1.

A review of the physical and geological setting of the subject property is conducted using the USGS topographic map, bedrock and groundwater contour maps (when available) and the Genesee County Soil Survey.

The past use of the subject property and the vicinity in general is traced through the use of aerial photographs, zoning and land use information for the area as well as any available Sanborn Maps which outline buildings which have occupied the subject property and adjoining properties.

3. SITE DESCRIPTION

3.1 LOCATION

The subject property to be reviewed consists of two parcels on the south side of Main Street (N.Y. State Route 5 & 33) at the intersection of Ellicott Street (Route 63) in the City of Batavia, Genesee County, New York. The Tax Account numbers of the parcels are 84.10-4-13.1 and 84.10-4-3.0. Parcel No. 13.1 is 1.4± acres and is improved with a 17,300± square foot building and associated parking. Parcel No. 3.0 is .5± acres and is currently paved and gravel parking. A portion of Parcel No. 13.1 was formerly a portion of Parcel No. 3.0. Figure 3-1 shows the location of the subject property and delineates an area of one mile radius within which a review for potential hazardous waste sites was conducted. Figure 3-2 is a tax map outlining the subject property and adjacent owners.

3.2 SITE AND VICINITY CHARACTERISTICS

From visual observation, the subject properties contain the referenced building and associated parking. The setting of the surrounding area is predominantly commercial development along Main and Ellicott Streets with the lands to the southwest being predominantly residential.

3.3 DESCRIPTION OF IMPROVEMENTS

Parcel No. 13.1 is improved with a 17,300± square foot two story brick and block building which is serviced by municipal sewer and water. The east parcel, No. 3.0, is currently vacant/parking lot utilized by the building on Parcel No. 13.1 and as a municipal public parking lot.

3.4 CURRENT USES OF PROPERTY

The building on the subject property is vacant and was formerly used as a restaurant. The building was last occupied in 1993. The remaining lands are utilized for parking.

3.5 PAST USES OF PROPERTY

The past uses of Parcel No. 13.1 include a Restaurant, Department of Public Works Garage, Municipal Offices, Municipal Light and Power Plant, and a Municipal Sewer and Water Works Plant. A portion of this parcel as well as Parcel No. 3.0 housed the E.N. Rowell Box Company from 1890 to 1978.

3.6 CURRENT USES OF ADJOINING PROPERTIES

North - Main Street/Municipal Buildings
South - Tonawanda Creek/Residential/Vacant
East - Commercial/Office Building
West - Municipal Sewage Pump Station

3.7 PAST USES OF ADJOINING PROPERTIES

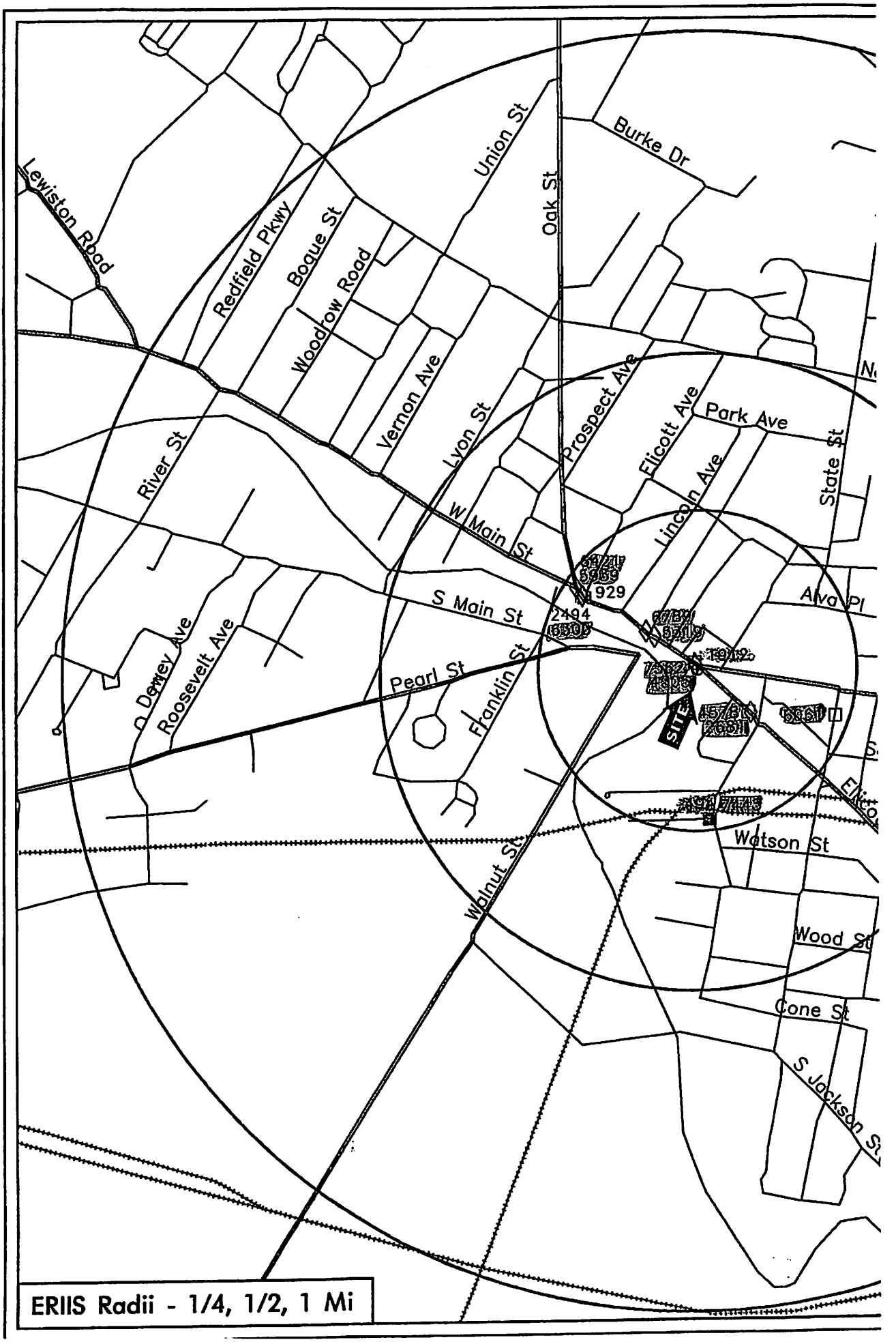
Based upon a review of a series of available aerial photographs and information gathered from local officials, the following was noted:

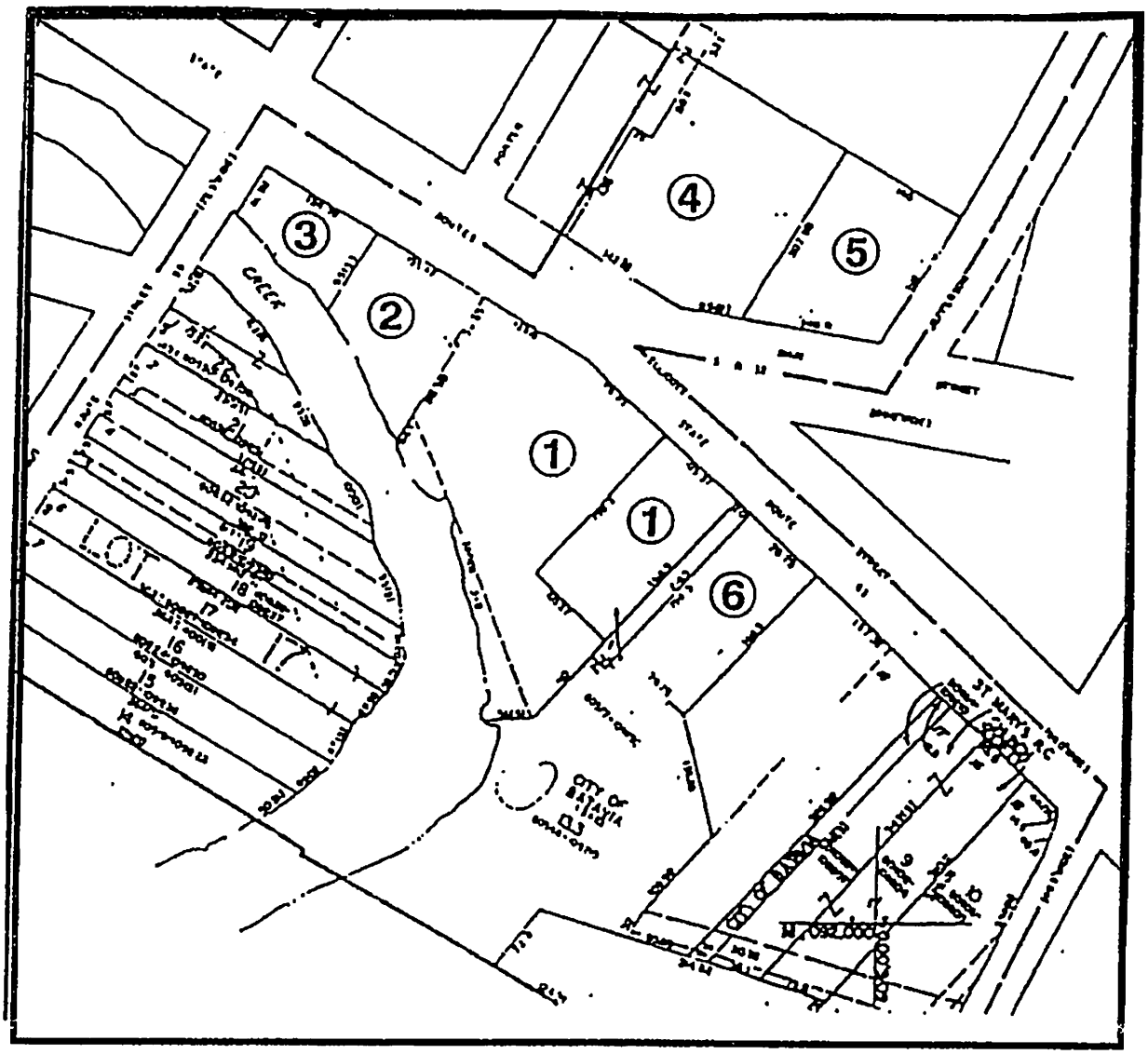
North - Office Building - Vacant

South - Tonawanda Creek - Residential - Doehler & Jarvis Die Casting Company

East - Garage and Service Station

West - Sewage Pump Station - Water Works


Lewiston Road
Redfield Pkwy
Bogue St
Woodrow Road
Union St
Oak St
Burke Dr
Vernon Ave
Lyon St
Prospect Ave
Ellicott Ave
Park Ave
State St
Lincoln Ave
River St
W Main St
S Main St
Alva Pl
Dewey Ave
Roosevelt Ave
Pearl St
Franklin St
SITE
Watson St
Walnut St
Wood St
Cone St
S Jackson St
929
2494
ERIIS Radii - 1/4, 1/2, 1 Mi



REF: MONROE COUNTY TAX MAPS SCALE: N.T.S.

LEGEND

LOT	TAX ACCT. NO.	OWNER (USE)
①	84.10 – 4 -- 13.1	A.G.A. Enterprises (Commercial) Subject Property
①	84.10 – 4 – 3	City of Batavia (Commercial) Subject Property
②	84.10 – 4 – 13.2	City of Batavia (Commercial)
③	84.10 – 4 – 24	City of Batavia (Vacant Commercial)
④	84.10 – 4 -- 25	City of Batavia (Commercial)
⑤	84.10 – 4 – 2	U.S. Government (Commercial)
⑥	84.10 – 4 – 4	Dean S. Lapp (Commercial)

FIGURE 3–2: TAX MAP

4. REVIEW RECORDS

4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

The following Federal, State and local environmental record sources were consulted to identify whether any sites from the source list are within the specified search distance of the subject property. Figure 3-1 provides the location of the sites encountered during the record sources review.

Source		Search Distance
NPL	- Federal National Priorities List	1.0 mile
CERCLIS	- Federal Comprehensive Environmental Response Compensation and Liability Information System List	0.5 mile
RCRA TSD	- Federal Resource Conservation and Recovery Act. Treatment Storage and Disposal Facilities List	1.0 mile
RCRA (SG & LG)	- Federal Resource Conservation and Recovery Act Generator List (SG - Small Generator; (LG - Large Generator)	Site and Adjoiners
ERNS	- Federal Emergency Response Notification System List	Site Only
HWDS	- NYSDEC Inactive Hazardous Waste Disposal Sites	1.0 mile
SWF	- NYSDEC Solid Waste Facility Register	0.5 mile
LST	- NYSDEC Leaking Storage Tanks	0.5 mile

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

Source		Search Distance
CBS	- NYSDEC Chemical Bulk Storage Tanks	Site and Adjoiners
PBS	- NYSDEC Petroleum Bulk Storage Tanks	Site and Adjoiners

A review of these sources showed one CERCLIS site, four RCRIS LG Sites, two RCRIS SG sites, one HWS site, one CBS site and seven PBS sites.

The following is a summary of each site. Reference to the inclusion of the sites are also outlined on the database reference sheets attached to this report. It should be noted that inclusion of these sites on the provided list notes both past and present conditions. Some of the facilities noted may no longer be existing. The RCRIS, PBS and CBS are noted only as storing, generating or utilizing potentially hazardous materials.

CERCLIS

1 Mill Street - 0.24 miles southeast of the subject property. Doehler-Jarvis Castings Division. This site involved soil and groundwater contamination associated with former operations at the Doehler-Jarvis Company.

CERCLIS (continued)

The building was demolished in 1979. The spill was discovered in 1981 and through remediation efforts over the past several years, the site has been delisted by the D.E.C. No further action appears to be required for the site. Site remediation correspondence from the environmental consultants and D.E.C. are included as attachments to this report.

RCRIS LG

10 West Main Street - 0.01 miles northwest of the subject property - City of Batavia Evans Street site. An exhaustive search, including conversations with ERIS, Environmental Protection Agency and local City Officials, was unable to determine why this is listed as an RCRIS LG. It may be that this is the mailing address for a City entity that does fall under this category.

39 Ellicott Street - 0.11 miles southeast of subject property - Batavia Tailors and Cleaners. No history of environmental concerns reported with this property.

37 Jackson Street - 0.23 miles southeast of the subject property - New York Telephone. No history of environmental concerns reported with this property.

RCRIS LG (continued)

1 Mill Street - 0.24 miles southeast of the subject property - former Doehler-Jarvis Plant. Building was demolished in 1974. (See CERCLIS Report).

RCRIS SG

204-210 West Main Street - 0.21 miles northwest of the subject property - Amerada Hess Station. No history of environmental concerns reported with this property.

229 West Main Street - 0.22 miles northwest of the subject property - Henrich Chevrolet. No history of environmental concerns reported with this property.

HWS

31 Swan Street - 0.51 miles southeast of the subject property - U.S. Chrome Corporation. Groundwater at this site was contaminated through plating operations associated with the business. Pumping and treatment of groundwater is ongoing. According to the attached DEC Report, it is anticipated that the continued pumping and treating of the water will eventually reduce the contaminant concentration to a desired level. Public water is supplied to all commercial facilities and residences near the site. The D.E.C.'s Division of Water is periodically monitoring the water quality. (D.E.C. Hazardous Waste Site Report included as an attachment).

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CBS

10 West Main Street - 0.01 miles northwest of the site - Water Pollution Control Facility. The facility is actually located at 5 Tread Easy Drive which is 1+ mile from the subject property. The 10 West Main Street address is the City Hall mailing address.

PBS

5 West Main Street - 0.005 miles northwest of the subject property - Batavia Wastewater Pump Station. Adjacent to the subject property. 4000 gallon UST containing diesel fuel for operation of pump station. Tank was installed in 1989 - no reported environmental concerns.

Main Street - 0.086 miles northwest of the subject property - Atlantic Refining and Marketing.

112 West Main Street - .099 miles northwest of the subject property - Parise's Gas for Less.

40 Ellicott Street - .110 miles southeast of the subject property - Soccio & Della Penna Inc.

226 West Main Street - .215 miles northwest of the subject property - Sugar Creek Store.

204-210 West Main Street - .231 miles northwest of the subject property - Hess Station.

PBS (continued)

140 West Main Street - .231 miles northwest of the subject property - NOCO Motor Fuels.

There is no history of environmental concerns reported with any of the above referenced PBS sites.

4.2 PHYSICAL AND GEOLOGICAL SETTING

A. Topographic Mapping

The United States Department of the Interior Geological Survey (USGS) topographic map of the Batavia North and Batavia South, New York quadrangle, photo revised in 1978, was reviewed to define general gradient and basic topographic features of the subject property. The site appears to have a gentle northeast to southwest slope which sheet drains towards Tonawanda Creek. There is a distinctive bank along the creek which ranges in height from 3-4 feet on the east side of the parcel to 6-8 feet towards the west side.

B. U.S.D.A. Soil Conservation Service Soil Survey

The U.S.D.A. Soil Conservation Service Soil Survey of Genesee County, New York was reviewed to provide information on the soil conditions at the site. The site falls into the soil classification, Palmyra Gravely Loam. Actual soil boring results for an adjacent property are outlined in a report prepared by Foundation Design, Inc. dated January 14, 1994. The borings indicate a soil profile consisting of 5-13 feet of fill over compact to dense glacial till and glacial outwash. This underlying natural soil appears to be a dense silty sand or sandy silt with varying amounts of gravel. These soil characteristics are comparable to the Soil Survey description of the Palmyra Series.

C. Bedrock

According to information provided in a report prepared by Foundation Design, Inc., dated January 14, 1994, the depth to bedrock in this general area is approximately 25± feet below the existing surface.

D. Groundwater

According to the above referenced report, groundwater is roughly at the same elevation as Tonawanda Creek or 10± feet below the surface.

4.3 HISTORICAL USE INFORMATION

A. Aerial Photographs

The Genesee County Soil and Water Conservation District provided photographs of the subject property and its surroundings for the years 1954 and 1963 for our inspection. Upon review of these photos, the following limited information was observed.

1954 (single photo)

Subject Property: West Parcel/Engine House Building and Box Factory. East Parcel, Box Factory.
North: Main Street - Office Buildings.
East: Building adjacent to box factory.
South: Long narrow building near creek - Doehler Casting Building.
West: Small building/vacant land.

1963

Subject Property: No apparent changes to the subject property.
North: No apparent changes.
East: No apparent changes.
South: No apparent changes.
West: No apparent changes.

The limited review of the aerial photographs did not indicate any suspicious activity or evidence of any dumping, filling or other types of environmental concerns at this time.

B. Sanborn Maps

Sanborn Maps outline the historical use of a given property. Sanborn Maps for the subject property from 1884, 1890, 1896, 1901, 1906, 1912, 1919, 1931, 1948 and 1968 were available for review of the subject property. The review outlines the Engine House Lot and the Box Factory Lot because the Tax Account parcels have changed it is easier to review the sites as they were. The following information was noted:

PARCEL NO. 13.1 (ENGINE HOUSE)

1884 - Vacant

1890 - Site not visible.

1896 - Site improved with Municipal Water Works and electric light station. Includes Council Chambers, Pump House and coal storage for boiler units.

1901 - No apparent changes.

1906 - West-Front building addition noted.

PARCEL NO. 13.1 (ENGINE HOUSE) (continued)

1912 - Large addition to west side of building. Coal shed added to south end of building off of existing coal storage area.

1919 - Sewage Pump Storage Building (silo) noted on the west side of the building.

1931 - No apparent changes.

1948 - Garage located on southeast portion of property.

1968 - Building addition added to south of building for highway garage and equipment storage.

PARCEL NO. 3.0 (Box Factory)

1884 - Vacant

1890 - Site not visible.

1896 - Two buildings on property. Paper box factory with smaller building to south which appears to house boiler units.

1901 - No apparent changes.

1906 - Warehouse added to south side of building.

1912 - Detached storage building noted off southeast corner of parent structure.

1919 - Box Company has occupied building to immediate east.

1931 - Large addition added to building on east property.

1948 - No apparent changes.

1968 - No apparent changes.

C. Zoning/Land Use

The subject parcels are in an area zoned Limited Commercial and Industrial. The majority of Parcel No. 13.1 is in the Limited Commercial District with the southeast portion of the parcel in the Industrial. Parcel No. 3.0 is entirely in the Industrial District.

5. INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

5.1 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

Information for this section was obtained from a site visits conducted on March 10 & 17, 1995, research of historical documents and information gathered from local officials. Additional information from this site visit is provided within the property review report found in Section 8 - Attachments.

A. Storage Tanks

There were Underground Storage Tanks (UST's) associated with several former uses of the Engine House. It has been reported that the highway garage and fire station utilized UST's for petroleum products. Through conversations with City officials, including the current Highway Superintendent who worked at the subject building, and personnel involved with the Fire Department, the disposition of these tanks is unknown. The possible location of these tanks include the northwest corner of the building and about halfway down the east side of the building.

A. Storage Tanks (continued)

One of the walk-in coolers in the former restaurant had some fill/vent pipes protruding through the floor. The use or possible association of UST's in regard to these pipes is unknown.

B. Odors

Only odors associated with the degradation of the Engine House building were noted.

C. Pools of Liquid

There were some areas of standing water located in the building which appeared to be due to roof leakage.

D. Containers

No containers were noted on the site.

E. Polychlorinated Biphenyls (PCB's)

There are fluorescent lights located in the building which are apparently original to the building. Some fluorescent lights manufactured prior to 1980 may have utilized P.C.B.'s in their ballast. There were no apparent signs of leakage associated with the lights. The lights/ballast should be responsibly discarded upon their removal.

E. Polychlorinated Biphenyls (PCB's) (continued)

There are a number of 400 and 800 electric service panels and transformers located throughout the building. Some electrical transformers utilize PCB's in their cooling system. It was not readily apparent if the noted services/transformers utilize PCB's.

F. Asbestos Containing Materials (ACM's)

The following materials could be considered suspect ACM's: Floor tile/mastic and ceiling tiles in the second floor room in the northwest corner of the building. Floor tile and mastic in the first floor bar area and floor tile and mastic in the second floor "prep kitchen" area.

G. Lead Based Paint

All painted surfaces of the building prior to 1978 may contain lead based paint. One area of particular concern is a room located on the second floor, north side of the building, in which the window and door trim paint is cracked and peeling.

6. RECOMMENDATIONS FOR IDENTIFIED ENVIRONMENTAL CONDITIONS

The potential environmental conditions outlined in this report are associated with potential petroleum releases, presence of Asbestos Containing Materials, Polychlorinated Biphenyls and Lead Based Paint. We recommend these items be addressed in a Phase II Report.

Underground Storage Tanks

It is recommended that further testing and research be conducted to verify the presence or removal of Underground Storage Tanks located near the northwest corner of the building and the east side of the building.

Suspect Asbestos Containing Material (SACM)

It is recommended that all SACM outlined in Section 5.1, F, be sampled and analyzed for asbestos. If found to contain asbestos, the ACM should be removed by a licensed and accredited contractor in accordance with current applicable State and Federal Regulations.

ENVIRONMENTAL PHASE I REVIEW
ENGINE HOUSE RESTAURANT, 1-17 W. MAIN ST., CITY OF BATAVIA
APRIL, 1995

Polychlorinated Biphenyls (PCB's) ? manufacturers and sheet large units

It is recommended that the transformers outlined in Section 5.1, E, be further investigated to determine the presence of PCB's. Should there be PCB's associated with the transformers, they should be removed and disposed of by a licensed contractor according to all State and Federal Regulations. All ballast associated with the fluorescent lights throughout the building should be responsibly discarded upon their replacement.

Lead Based Paint specific areas - covered or painted

All peeling and chipped painted surfaces should be tested for the presence of lead. If found to contain lead, these surfaces should be abated by a licensed contractor according to all applicable State and Federal Regulations.

suspicions about lead factory site
natural of business ?
chemicals on-site ?
records sketchy on what went on there.

7. FINDINGS AND CONCLUSIONS

This Phase I Environmental Assessment has identified four (4) potential environmental conditions including possible Underground Storage Tanks, Suspect Asbestos Containing Material, PCB's and Lead Base Paint. Further review and/or investigation through a Phase II Report appears warranted at this time.

Our evaluation of the subject property is a professional opinion based on work performed in the agreement for the Phase I Environmental Site Assessment. Because subsurface or other destructive testing was not performed, we cannot state conclusively or certify that the site is free of contaminants. For additional confidence, further study as outlined in Section 6 is recommended.

Respectfully submitted,

Michael A. Simon

Michael A. Simon

Geoffrey Benway

Geoffrey A. Benway, P.E.
MRB GROUP, P.C.

MAS/GAB/maf

Enclosures

8. ATTACHMENTS

ENVIRONMENTAL QUESTIONNAIRE

ERIIS REPORT

D.E.C. LETTER REGARDING EVANS STREET SITE

WOODWARD-CLYDE CONSULTANTS SUMMARY OF EVANS STREET SITE

D.E.C. HAZARDOUS WASTE SITE REPORT -
U.S. CHROME CORPORATION - SWAN STREET

MRB | group

ENVIRONMENTAL QUESTIONNAIRE

DESCRIPTION OF SITE: ADDRESS:
TAX PARCEL NO. 84.10-4-13.1 - ENGINE HOUSE > MAIN & ELLICOTT STR.
TAX PARCEL NO. 84.10-4-3.0 - CITY PARKING LOT

Question	Owner/ Occupant			Observed During Site Visit		
1. Is the *property* or an *adjoining property* used for an industrial use?	Yes	(No)	Unk	Yes	(No)	Unk
2. To the best of your knowledge, has the *property* or any *adjoining property* been used for an industrial use in the past?	(Yes)	No	Unk	(Yes)	No.	Unk
3. Is the *property* or any *adjoining property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	Yes	(No)	Unk	Yes	(No)	Unk
4. To the best of your knowledge has the *property* or any *adjoining property* been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	(Yes)	No	Unk	(Yes)	No	Unk
5. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal. in volume or 50 gal. in the aggregate, stored on or used at the *property* or at the facility?	Yes	No	(Unk)	Yes	(No)	Unk
6. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gal) or sacks of chemicals located on the property or at the facility?	Yes	No	(Unk)	Yes	(No)	Unk

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Question	Owner/ Occupant			Observed During Site Visit		
7. Has *fill dirt* been brought onto the *property* that originated from a contaminated site or that is of an unknown origin?	Yes	No	(Unk)	Yes	No	(Unk)
8. Are there currently, or to the best of your knowledge have there been previously, any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?	Yes	(No)	Unk	Yes	(No)	Unk
9. Is there currently, or to the best of your knowledge has there been previously, any *stained soil* on the *property*?	Yes	No	(Unk)	Yes	No	(Unk)
10. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?	Yes	No	(Unk)	(Yes)	No	Unk
11. Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*.	Yes	No	(Unk)	Yes	No	(Unk)
12. Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	Yes	No	(Unk)	Yes	(No)	Unk
13. If the *property* is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	Property is <u>not</u> served by a private well			MUNICIPAL H_2O		
	Yes	No	Unk	Yes	No	Unk

MRB | group

Question	Owner/ Occupant			Observed During Site Visit		
14. Does the *owner* or *occupant* of the *property* have any knowledge of environmental *liens* or governmental notification relating to past or recurrent violations of environmental laws with respect to the *property* or any facility located on the *property*?	Yes	(No)	Unk	Yes	(No)	Unk
15. Has the *owner* or *occupant* of the *property* been informed of the past or current existence of *hazardous substances* or *petroleum products* or environmental violations with respect to the *property* or any facility located on the *property*?	Yes	(No)	Unk	Yes	(No)	Unk
16. Does the *owner* or *occupant* of the *property* have any knowledge of any *environmental site assessment* of the property or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?	Yes	(No)	Unk	Yes	(No)	Unk
17. Does the *owner* or *occupant* of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property* by any owner or occupant of the *property*?	Yes	(No)	Unk	Yes	(No)	Unk
18. Does the *property* discharge waste water on or adjacent to the *property* other than storm water into a sanitary sewer system?	Yes	(No)	Unk	Yes	(No)	Unk
19. To the best of your knowledge, have any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the *property*?	Yes	No	(Unk)	Yes	No	(Unk)
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	(Yes)	No	Unk	(Yes)	No	Unk

City removed transformers contained in a power vault and disposed of them in accordance with environmental regulations circa 1987

MRB | group

The questionnaire was completed by:

Name William Reemtsen
Title City Manager
Firm City of Batavia
Address City Hall, 10 West Main St.
Batavia, NY 14020

Phone Number 716-343-8180
Date May 12, 1995

MRB Representative
Name Michael A. Simon
Date 3/17/95
Conditions 38° ± Snow/Rain

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.

[signature] May 12, 1995
Signature Date

Signature Date

Ref. mm013.A55/1/95

PERTAINING TO:

1-17 WEST MAIN ST.
BATAVIA, NY 14020

ON BEHALF OF:

MRB Group P.C.
2480 Browncroft Blvd.
Rochester, NY 14625

PREPARED ON: 02/28/1995

REPORT NUMBER: 24964A

ERIIS ASTM STATISTICAL PROFILE
State: NY

ERIIS Report #24964A

Feb 27, 1995

Site:
1-17 WEST MAIN ST.
BATAVIA, NY 14020

Latitude: 42.998123
Longitude: -78.187914

Database	Radius (Mi)	Property	Property-1/4	1/4-1/2	1/2-1	≥1	TOTAL
NPL	1		0	0	0		0
RCRIS_TS	1		0	0	0		0
CERCLIS	.5		1	0			1
RCRIS_LG	.25	X	4				4
RCRIS_SG	.25		2				2
ERNS	.05		0				0
HWS	1		0	0	1		1
LST	.5		0	0			0
SWF	.5		0	0			0
CBS	.25	X	1				1
MOSF	.25		0				0
PBS	.25	X	7				7
			15	0	1	0	16

Radon Zone Level: NOT REPORTED

A Radon Zone should not be used to determine if individual homes need to be tested for radon.
The EPA's Office of Radiation and Indoor Air recommends that all homes be tested for radon, regardless of geographic location or the zone designation in which the property is located.

A property is defined as a .05 mile buffer around the site's latitude and longitude.

A blank radius count indicates that the database was not searched by this radius per client instructions.

NR in a radius count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.

ERIIS SUMMARY OF PLOTTABLE SITES

ERIIS Report #24984A — Feb 27, 1995

ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
36048017582	BATAVIA (C) WASTEWATER PUMP ST 5 W MAIN ST BATAVIA, NY 14020-2019 COUNTY: GENESEE	PBS	0.005 MI	NORTHWEST	7582
36007014305	BATAVIA CITY OF EVANS STREET SITE 10 W MAIN ST BATAVIA, NY 14020-2040 COUNTY: GENESEE	RCRIS_LG	0.010 MI	NORTHWEST	4305
36047001912	WATER POLLUTION CONTROL FACILITY 10 W MAIN ST BATAVIA, NY 14020-2040 COUNTY: GENESEE	CBS	0.010 MI	NORTHWEST	1912
36048015319	ATLANTIC REFINING & MARKETING FACILITY #0363-9234 BATAVIA, NY 14020 COUNTY: GENESEE	PBS	0.084 MI	NORTHWEST	5319
36048016789	PARISE'S GAS FOR LESS 112 W MAIN ST BATAVIA, NY 14020-2014 COUNTY: GENESEE	PBS	0.099 MI	NORTHWEST	6789
36007002681	BATAVIA TAILORS AND CLEANERS 39 ELLICOTT ST BATAVIA, NY 14020-3138 COUNTY: GENESEE	RCRIS_LG	0.107 MI	SOUTHEAST	2681
36048014578	SOCCIO & DELLA PENNA INC 40 ELLICOTT ST BATAVIA, NY 14020-3137 COUNTY: GENESEE	PBS	0.110 MI	SOUTHEAST	4578
36008012494	AMERADA HESS STATION 32447 204-210 W MAIN ST BATAVIA, NY 14020 COUNTY: GENESEE	RCRIS_SG	0.211 MI	NORTHWEST	2494
36048016305	SUGAR CREEK STORE #007 228 W MAIN ST BATAVIA, NY 14020-1939 COUNTY: GENESEE	PBS	0.215 MI	NORTHWEST	6305
36008000929	HEINRICH CHEVROLET OLDS CAD INC 229 W MAIN ST BATAVIA, NY 14020-1940 COUNTY: GENESEE	RCRIS_SG	0.216 MI	NORTHWEST	929
36048048421	HESS STATION #32447 204-210 WEST MAIN STREET & OAK STREET BATAVIA, NY 14020 COUNTY: GENESEE	PBS	0.231 MI	NORTHWEST	8421
36048015939	NOCO MOTOR FUELS S-72 140 WEST MAIN STREET & OAK BATAVIA, NY 14020 COUNTY: GENESEE	PBS	0.231 MI	NORTHWEST	5939
36007006061	NEW YORK TELEPHONE 27 JACKSON ST BATAVIA, NY 14020-3201 COUNTY: GENESEE	RCRIS_LG	0.232 MI	SOUTHEAST	6061
36001000494	DOEHLER-JARVIS CASTINGS DIV 1 MILL ST BATAVIA, NY 14020 COUNTY: GENESEE	CERCLIS	0.239 MI	SOUTHEAST	494
36007007445	FORMER DOEHLER JARVIS PLANT 1 MILL ST BATAVIA, NY 14020-3118 COUNTY: GENESEE	RCRIS_LG	0.239 MI	SOUTHEAST	7445
36053000613	U S CHROME CORPORATION 31 SWAN ST BATAVIA, NY 14020-3233 COUNTY: GENESEE	HWS	0.570 MI	SOUTHEAST	613

ERIIS ENVIRONMENTAL DATA REPORT
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY INFORMATION SYSTEM
CERCLIS - PLOTTABLE SITES - PAGE 1

ERIIS Report #24964A

Feb 27, 1995

ERIIS ID / EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS / INCIDENT CATEGORY	MAP ID
36001000494 NYD074021171	DOEHLER-JARVIS CASTINGS DIV DISTANCE FROM SITE: 0.239 MILES DIRECTION FROM SITE: SOUTHEAST	1 MILL ST BATAVIA, NY 14020 COUNTY: GENESEE	NOT ON THE NPL BLANK	494

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	08/01/81	BLANK
PRELIMINARY ASSESSMENT	09/22/87	BLANK
SCREENING SITE INSPECTION	12/28/91	BLANK

ERIIS ENVIRONMENTAL DATA REPORT
RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM
RCRIS_SG - PLOTTABLE SITES - PAGE 1

ERIIS Report #24984A

Feb 27, 1995

ERIIS ID / EPA ID / RCRA COMPLIANT	FACILITY / TOTAL NUMBER OF CORRECTIVE ACTIONS / NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE / RAATS ACTION/STATUS / RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
36008012494 NY0000574954 Y	AMERADA HESS STATION 32447 0 0	204-210 W MAIN ST BATAVIA, NY 14020 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.211 MILES	NORTHWEST	2494

REPORTED WASTE CODES
D000
D001
D018

36008000929 NYD013649819 Y	HEINRICH CHEVROLET OLDS CAD INC 0 0	229 W MAIN ST BATAVIA, NY 14020-1940 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.216 MILES	NORTHWEST	929

REPORTED WASTE CODES
D000
D001
F002
F003
F004
F005

ERIIS ENVIRONMENTAL DATA REPORT
NEW YORK INACTIVE HAZARDOUS WASTE DISPOSAL SITES
HWS - PLOTTABLE SITES - PAGE 1

ERIIS Report #24984A

Feb 27, 1995

ERIIS ID EPA ID SITE CODE	FACILITY	ADDRESS	OWNER OWNER ADDRESS	MAP ID
36053000813 NYD002124063 819006	U S CHROME CORPORATION DISTANCE FROM SITE: 0.570 MILES DIRECTION FROM SITE: SOUTHEAST	31 SWAN ST BATAVIA, NY 14020-3233 COUNTY: GENESEE	U S CHROME CORPORATION 31 SWAN STREET BATAVIA, NY	613

CLASSIFICATION: SITE CLOSED - REQUIRES CONTINUED MANAGEMENT

ERIIS ENVIRONMENTAL DATA REPORT
NEW YORK CHEMICAL BULK STORAGE FACILITIES
CBS - PLOTTABLE SITES - PAGE 1

ERIIS Report #24984A — Feb 27, 1995

ERIIS ID. / CBS NO. / PBS NO. / SPDES NO.	FACILITY / ADDRESS	CERT. EXP. / STATUS	CONTACT / PHONE	FACILITY TYPE	MAP ID
36047001912 8-000230 NOT REPORTED NOT REPORTED	WATER POLLUTION CONTROL FACILITY 10 W MAIN ST BATAVIA, NY 14020-2040 COUNTY: GENESEE	03/04/1994 05/23/1996 ACTIVE DISTANCE FROM SITE: 0.010 MILES DIRECTION FROM SITE: NORTHWEST	FRANK MAGER (716) 343-8180	MUNICIPALITY	1912

TANK NO.	CAPACITY (GAL)	% HAZ.	SUBSTANCE DESC.	STATUS	TANK LOCATION
00002	15000	8	SINGLE HAZARDOUS SUBSTANCE ON DEC LIST	IN-SERVICE	ABOVEGROUND

ERIIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS	CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
36048017562 8-501271	BATAVIA (C) WASTEWATER PUMP ST 5 W MAIN ST BATAVIA, NY 14020-2019 DISTANCE FROM SITE: 0.005 MILES DIRECTION FROM SITE: NORTHWEST	CITY OF BATAVIA (716) 343-8180	ACTIVE	1 4000	04/30/1990 04/19/1995	7562

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
003	10/89	4000	NOS. 1,2 OR 4 FUEL OIL	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND

ERIIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS	CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
36048015319 8-097144	ATLANTIC REFINING & MARKETING FACILITY #0363-9234 100 WEST MAIN STREET;BATAVIA, NY 14020 DISTANCE FROM SITE: 0.084 MILES DIRECTION FROM SITE: NORTHWEST	CO OP 4058 FAC 60124 (716) 343-9682	ACTIVE RETAIL GASOLINE SALES	3 26000	03/11/1992 03/24/1997	5319

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
001	12/81	10000	LEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
002	12/81	10000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
003	02/75	6000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND

ERIIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS	CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
36048016789 8-395129	PARISE'S GAS FOR LESS 112 W MAIN ST BATAVIA, NY 14020-2014 DISTANCE FROM SITE: 0.099 MILES DIRECTION FROM SITE: NORTHWEST	MARK DICKINSON (716) 343-9874	ACTIVE RETAIL GASOLINE SALES	7 21000	08/17/1992 10/08/1997	6789

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
006	02/87	2000	DIESEL	CLOSED BEFORE APRIL 1, 1991	STEEL/CARBON STEEL	ABOVEGROUND
005	04/81	500	NOS. 1,2 OR 4 FUEL OIL	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
004	04/81	4000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
003	04/81	4000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
002	04/81	4000	LEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
001	04/81	4000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
007	07/87	4000	DIESEL	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
008	07/87	500	KEROSENE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND

ERIIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS	CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
36048014578 8-008516	SOCCIO & DELLA PENNA INC 40 ELLICOTT ST BATAVIA, NY 14020-3137 DISTANCE FROM SITE: 0.110 MILES DIRECTION FROM SITE: SOUTHEAST	SOCCIO & DELLA PENNA INC (716) 343-1450	ACTIVE TRUCKING/TRANSPORTATION OTHER	1 10000	04/25/1991 07/01/1996	4578

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
001	11/82	10000	DIESEL	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND

ERIIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS	CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
36048016305 8-390082	SUGAR CREEK STORE #007 226 W MAIN ST BATAVIA, NY 14020-1939 DISTANCE FROM SITE: 0.215 MILES DIRECTION FROM SITE: NORTHWEST	SUGAR CREEK STORES INC (716) 343-2914	INACTIVE RETAIL GASOLINE SALES OTHER RETAIL SALES	0 0	05/08/1992 08/30/1997	6305

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
001	12/86	6000	UNLEADED GASOLINE	CLOSED - REMOVED	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
002	12/86	6000	UNLEADED GASOLINE	CLOSED - REMOVED	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
003	12/86	4000	UNLEADED GASOLINE	CLOSED - REMOVED	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND

ERIS ID / PBS NO. / CBS NO.	FACILITY / ADDRESS			CONTACT NAME / PHONE	SITE STATUS / FACILITY TYPE	NO. OF TANKS / CAPACITY (GAL)	CERTIFICATE DATE / EXPIRATION DATE	MAP ID
004	12/88	1000	KEROSENE	CLOSED - REMOVED	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND		
36048015939 8-232432	NOCO MOTOR FUELS S-72 140 WEST MAIN STREET & OAK BATAVIA, NY 14020 DISTANCE FROM SITE: 0.231 MILES DIRECTION FROM SITE: NORTHWEST			STATION MANAGER (716) 343-1927	ACTIVE RETAIL GASOLINE SALES	3 28000	01/28/1993 01/27/1998	5939

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
01	10/77	10000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
02	04/77	10000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND
003	12/57	550	OTHER	CLOSED - REMOVED	STEEL/CARBON STEEL	UNDERGROUND
004	12/57	550	NOS. 1,2 OR 4 FUEL OIL	CLOSED - REMOVED	STEEL/CARBON STEEL	UNDERGROUND
05	07/87	8000	UNLEADED GASOLINE	IN-SERVICE	STEEL/CARBON STEEL	UNDERGROUND

36048046421 8-600132	HESS STATION #32447 204-210 WEST MAIN STREET & OAK STREET BATAVIA, NY 14020 DISTANCE FROM SITE: 0.231 MILES DIRECTION FROM SITE: NORTHWEST			AMERADA HESS CORP (716) 000-0000	ACTIVE RETAIL GASOLINE SALES	5 50000	08/07/1993 08/01/1998	6421

TANK ID	INSTAL. DATE	CAPACITY (GAL.)	PRODUCT STORED	TANK STATUS	TANK TYPE	TANK LOCATION
001	08/93	12000	UNLEADED GASOLINE	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
002	08/93	10000	UNLEADED GASOLINE	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
003	08/93	10000	UNLEADED GASOLINE	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
004	08/93	10000	DIESEL	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND
005	08/93	8000	KEROSENE	IN-SERVICE	FIBERGLASS REINFORCED PLASTIC	UNDERGROUND

ERIIS ENVIRONMENTAL DATA REPORT
RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM
RCRIS_LG - PLOTTABLE SITES - PAGE 1

ERIIS Report #24964A

Feb 27, 1995

ERIIS ID / EPA ID / RCRA COMPLIANT	FACILITY / TOTAL NUMBER OF CORRECTIVE ACTIONS / NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE / RAATS ACTION/STATUS / RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
36007014305 NYD987018165 Y	BATAVIA CITY OF EVANS STREET SITE 0 0	10 W MAIN ST BATAVIA, NY 14020-2040 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.010 MILES	NORTHWEST	4305
REPORTED WASTE CODES D000 D008						
36007002681 NYD013648142 Y	BATAVIA TAILORS AND CLEANERS 0 0	39 ELLICOTT ST BATAVIA, NY 14020-3138 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.107 MILES	SOUTHEAST	2681
REPORTED WASTE CODES F002						
36007006061 NYD980757280 Y	NEW YORK TELEPHONE 0 0	27 JACKSON ST BATAVIA, NY 14020-3201 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.232 MILES	SOUTHEAST	6061
REPORTED WASTE CODES						
36007007445 NYD981132608 Y	FORMER DOEHLER JARVIS PLANT 0 0	1 MILL ST BATAVIA, NY 14020-3118 COUNTY: GENESEE	FACILITY NOT REPORTED IN RAATS	0.239 MILES	SOUTHEAST	7445
REPORTED WASTE CODES X001 X002						

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414

Thomas C. Jorling
Commissioner

February 8, 1994

Mr. David Friedman
Senior Staff Geologist
Woodward-Clyde Consultants, Inc.
363 Seventh Avenue, 11th Floor
New York, New York 10001

Dear Mr. Friedman:

RE: Spill #9109575
Evans Street Property
Batavia, Genesee County

Please be advised that upon review of the confirmatory sampling results included in your January 21, 1994 report, this office concurs with your assessment that the landfarming performed at this site may be discontinued. Therefore this office requires no further action at this time at this site, and this spill number will be removed from our active file.

If you have any further questions regarding this matter, please feel free to contact me at the above address or by telephone at (716)226-2466.

Sincerely,

Timothy P. Walsh
Environmental Engineer I
Division of Spills Management

TPW:pma

Evans Street Clean up.

Woodward-Clyde Consultants, Inc.
Engineering & sciences applied to the earth & its environment

July 21, 1994

Mr. Tim Walsh
Division of Spills Management
New York State Department of
Environmental Conservation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Subject: Spill #9109575
Evans Street Site Well Decommissioning
Batavia, New York

Dear Mr. Walsh:

In accordance with letters dated May 6 and June 2, 1994 from Woodward-Clyde Consultants, Inc. (WCC) to the New York Department of Environmental Conservation (NYSDEC), the City of Batavia has completed the decommissioning of nine groundwater monitoring wells located on the Evans Street Site, Batavia, New York. The work was performed under WCCI supervision on June 16 and 17, 1994 by Empire Soils Investigations, Inc. (ESII) of Hamburg, New York. The monitoring wells were decommissioned in accordance with guidelines established by the New York State Department of Environmental Conservation's (NYSDEC) document "Decommissioning Procedures, New York State Superfund Standby Contract Work Assignment D0028523, NYSDEC Monitoring Well Decommissioning" (Malcolm-Pirnie, April, 1993). The following is a summary of the rationale for the well decommissioning method chosen and the field work performed.

The NYSDEC guidelines are based on performance-oriented procedures which allow the use of several acceptable methods to decommission a well. To aid in the selection process, a flow chart is developed in the guidelines which steps through the decision-making process to arrive at the appropriate method for decommissioning a specific well.

The steps in this process are primarily driven by the well's construction, surrounding geology/hydrogeology, and the type of any contamination, if present. Guided by these parameters, the flow chart leads to four alternative methods for closing the well:

- Overdrilling
- Casing Perforation

miscjob: \evansdec.ltr

Amherst Office
15 Hazelwood Drive, Suite 110 • Amherst, New York 14228-2298
716-691-1777 • Fax 716-691-4560

- Casing Pulling
- Grouting the Well Casing In-Place

Casing pulling was the method selected in the decommissioning of the nine wells at the site. This method was appropriate based on the specific conditions at each well summarized below.

The nine wells were all constructed in the near surface unconfined water-bearing unit. The general stratigraphy they penetrated consisted of varying thicknesses of loose to medium dense granular fill overlying loose to medium dense granular natural sediments. The groundwater monitoring program conducted on the site has shown low, marginal exceedances for a few parameters in the monitored zone relative to New York State Groundwater Quality Standards and Guidance Values.

The maximum depth of the nine wells was 17.5 feet below ground surface and the typical completion depth was approximately 13 feet below ground surface. Typical construction detail was as follows: 5 feet of 2-inch slotted PVC well screen completed to 2.5 feet above ground surface with 2-inch PVC riser; the well boring was backfilled with sandpack to 2 feet above the well screen, 3 feet of bentonite seal, and 3 feet of cement bentonite grout; a 4-inch steel protective surface casing was installed over the well and sealed in place with bentonite-cement grout to a depth of 2 feet. Well MW-9 had a similar construction except it was made of 4-inch PVC slotted screen and riser.

As such, the shallow construction of the wells in loose to medium dense granular materials was amenable to removal by casing pulling. The casing pulling method afforded an appropriately conservative degree of groundwater protection based on the low-level of contamination in the site upper water-bearing unit.

The following procedures were used for decommissioning the nine site wells. Just prior to any decommissioning activity, the static water level and depth of the well was measured. ESII then drove drill rod through the bottom of the well to aid flow of the bentonite-cement grout seal into the surrounding sand pack. A 5% bentonite-cement grout was then pumped to the bottom of the well using a tremie pipe. The bentonite-cement grout was brought up to ground surface and was allowed to settle. At most well locations, the head of grout had to be replenished with approximately two well volumes before pulling the casing. No groundwater was observed being displaced to the ground surface at any of the nine locations. After stabilizing the level of grout at or near the

ground surface, ESII pulled the protective surface casing, well screen and riser from the ground using the powered winch and hydraulics of the drill rig. WCCI then measured the length of the well pulled from the ground to verify that the entire length had been recovered. All wells but one were successfully removed using this method. In one case at location MW-2, the 5 feet length of slotted screen was not returned to the surface. ESII made several attempts to retrieve this section using spearing techniques, but could not retrieve it. The top of the section was measured at 7 feet below ground surface and was grouted into place. After removal of protective surface casings and wells, the remaining hole was backfilled with bentonite-cement grout to ground surface. Before demobilization from the site, ESII returned to each location to bring the grout to ground surface if settlement occurred.

The removed PVC and steel casings and grout surface seal were staged on and covered with polyethylene sheeting on the site. The City of Batavia removed these materials for proper disposal. The City segregated the steel protective casings from the PVC well casings and grout surface seal. The protective steel surface casings were then disposed of to a scrap metal facility. The PVC well casings and grout material were disposed of with other municipal waste to the American Refuse Energy from Waste facility in Niagara Falls, New York.

The decommissioning of the nine groundwater monitoring wells at the Evans Street Site was performed in accordance with guidelines promulgated by the NYSDEC. The purpose of these guidelines is to protect groundwater quality by appropriately removing monitoring wells which are no longer in use. The NYSDEC has been requested by the City of Batavia and WCCI to indicate if any future groundwater sampling would be required at the site. In verbal communication, the NYSDEC has indicated that further sampling of the site groundwater will not be required and all groundwater issues requested by the NYSDEC to be investigated have been satisfactorily addressed.

A letter dated February 8, 1994 from the NYSDEC to WCCI states the Spill Number 9109575 opened for the site has been removed from active file status and no further action is required on the site at this time. Based on these conversations and

correspondence with the NYSDEC, the City considers the site case closed and plans on taking no further action of investigation or remediation.

Very truly yours,

David P. Friedman
Senior Staff Geologist

John H. Gratz
Project Manager

DPF/JHG/kjs

cc: William Reemsten - City of Batavia
Steve Northrup - Graham Manufacturing
Craig Slater, Esq. - Saperston & Day
James Roetzer - Woodward-Clyde

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 4 REGION: 8 SITE CODE: 819006
EPA ID: NYD002124063

NAME OF SITE : U.S. Chrome Corporation
STREET ADDRESS: 31 Swan Street

TOWN/CITY:	COUNTY:	ZIP:
Batavia	Genesee	14020

SITE TYPE: Open Dump- X Structure- Lagoon- Landfill- Treatment Pond-
ESTIMATED SIZE: Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: U.S. Chrome Corporation
CURRENT OWNER ADDRESS.: 31 Swan Street, Batavia, NY
OWNER(S) DURING USE...:
OPERATOR DURING USE...: U.S. Chrome Corporation
OPERATOR ADDRESS.....: 31 Swan Street, Batavia, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From unknown To

SITE DESCRIPTION:
U.S. Chrome operated a plating facility at this location for several years, (the actual length of time is unknown, however). Plating bath liquid leaked from one of the plating tanks into the sandy soil and eventually into the groundwater. As a result, groundwater in the vicinity is contaminated with hexavalent chromium (Cr+6). The Company is currently pumping groundwater via a single wellpoint 25 feet deep. The treated water is then discharged to a sanitary sewer. The hexavalent chromium contamination in the groundwater at the well point has been reduced from 2000 ppm down to 70 ppm. The plant is located in an industrial area, and is served by municipal water. Construction to replace an old sewer line was done in the summer of 1985, and it crossed part of the contaminated area.

A Phase I Investigation has been completed. No further investigation is planned at this time. Pumping and treating of the groundwater is ongoing. The DEC's Division of Water (DOW) is periodically monitoring the water quality.

HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY (units)
Plating bath containing hexavalent chromium (Cr+6)	unknown

SITE CODE: 819006

ANALYTICAL DATA AVAILABLE:
Air- Surface Water- Groundwater-X Soil- Sediment-

CONTRAVENTION OF STANDARDS:
Groundwater-X Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: None State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress-X Completed-
NATURE OF ACTION: Groundwater pumping and treatment installed

GEOTECHNICAL INFORMATION:
SOIL TYPE: Palmyra Gravelly Loam
GROUNDWATER DEPTH: Approximately 10-15 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Some groundwater contamination still remains, but it is anticipated that the continued pumping and treating of the water will eventually reduce the contaminant concentration to the desired levels.

ASSESSMENT OF HEALTH PROBLEMS:

Groundwater at site remains contaminated with levels of total and hexavalent chromium in excess of groundwater standards. Pumping and treating of contaminated groundwater continues. Public water is supplied to all commercial facilities and residences near the site.

APPENDIX 9

Reference of Published Sources

Reference of Published Sources

USGS 7.5 Minute Topographic Quadrangle Map Batavia South, New York	www.usgs.gov
USEPA NPL, Delisted NPL, CERCLIS, CERCLIS NFRAP, RCRA TSD, RCRA Generator, Federal Institutional and Engineering Controls, and ERNS Listings	USEPA Website
NYSDEC IHWDS, Voluntary Cleanup Site, Brownfield Sites, and Updated Spills	NYSDEC Website
NYS Hazardous Substance Sites	NYSDEC Hazardous Substance Waste Disposal Site Study Book, 1998
Local Landfill or Solid Waste Information	Genesee County Health Department
Part 360 Permitted Landfill listings	NYSDEC Website
Erie County Soil Survey	http://websoilsurvey.nrcs.gov/app/
Aerial Photograh	http://gis.co.genesee.ny.us/OnlineMapping/Default.aspx#
Sanborn Maps	Buffalo & Eire County Public Library
Street Directories	Richmond Public Library
Atlas Maps	Richmond Public Library
Assessment information	City of Batavia Municipal offices and web sources
Building Department Records	City of Batavia Municipal offices
Fire Department Records	City of Batavia Fire Department

Tables

Table 3-1

Summary of Remedial Work Generated Waste
Evans Street Site
Batavia, NY

Stockpiled Material

Major Constituent	Description	Estimated Volume
Petroleum Contaminated Soils (Dry)	Soils with minor amount of debris (rock, concrete, brick, wood, glass, steel/iron) capable of maintaining an angle of repose > 15 degrees. Material identified for bioremediation.	1020 cu. yds.
Petroleum Contaminated Soils (Wet)	Soils with minor amount of debris (rock, concrete, wood, brick, glass, steel/iron) incapable of maintaining an angle of repose > 15 degrees. Material identified for bioremediation.	573 cu. yds.
Petroleum Contaminated Concrete	Concrete from the floor pad, footers, and pit walls/floors, with minor amount of steel/iron (piping and re-bar). Material was from tank area and shows staining where in contact with contaminated soils and/or groundwater. Waste characterized by sample WCS-1.	125 cu. yds.
Steel/Iron Piping and Miscellaneous Metal	Piping removed from contaminated soils excavation or exhibited elevated organic vapor readings. Also minor amount of angle iron, bolts, rail, and miscellaneous metal. Waste chararcterized by sample WCS-1.	Not Measured
Petroleum Contaminated Lumber	Planking and miscellaneous pieces of wood removed from or used in the cleaning of the tank excavation. Most of it stained. Waste characterized by sample WCS-1.	Not Measured
Hydraulic Oil Contaminated Soils (Dry)	Soils with minor amount of debris (rock,concrete,wood,steel/iron) from area of hydraulic lift excavations. Capable of maintaining an angle of repose > 15 degrees. Material identified for bioremediation.	28 cu. yds.
Hydraulic Oil Contaminated Soils (Wet)	Soils with minor amount of debris (rock,concrete,wood,steel/iron) from area of hydraulic lift excavations. Incapable of maintaining an angle of repose > 15 degrees. Material identified for bioremediation.	10 cu. yds.

Table 3-1

Summary of Remedial Work Generated Waste
Evans Street Site
Batavia, NY

Stockpiled Material

Major Constituent	Description	Estimated Volume
Hydraulic Oil Contaminated Concrete	Concrete with minor amount of steel/iron (re-bar) which was in contact with contaminated soils and/or groundwater in area of hydraulic lift excavation and shows visible staining. Waste characterized by sample WCS-1.	10 cu. yds.
Hydraulic Lift Steel	Four telescoping hydraulic lifts and a section of piping removed from the hydraulic lift excavations. Some residue and sludge is contained in the lift bodies. Waste characterized by sample WCS-1.	Not Measured
Metal-Residue Contaminated Pipe	Concrete-encased pipe removed from the southwestern side of the concrete floor pad. Discovered in the previous investigation and discussed in the Work Plan. Waste characterized as hazardous by sample WCS-2 due to leachable lead.	20 cu. yds.
Potentially Solvent Contaminated Soil	Soil removed from the west-central section of the west trench which exhibited no visible oil-staining or petroleum odor, but did exhibit elevated organic vapor readings. Composite sample ESS-1 exhibited no contamination. Material identified for bioremediation.	29 cu. yds.

Drummed Material

Drum Label	Description	Quantity
Spill Absorbent 7/29/92	Oil-absorbent booms, pads, and "oil-dry" ground cover used to clean ponded water in tank excavatition, "oily" water in other excavations, and some ground spillage due to tank removal operation. Some free liquid in some drums. Drums labelled 1-7. Waste characterized by sample WCS-1.	7 x 55-gals.

Table 3-1

Summary of Remedial Work Generated Waste
Evans Street Site
Batavia, NY

Drummed Material

Drum Label	Description	Quantity
500-gal. Tank Wash and Rinse Water	Product and wash/rinse water generated in the cleaning of the 500 gallon storage tank removed from the site. Waste characterized by sample WCS-4.	2 x 55-gals.
Plastic and PPE 7/24/92	Polyethylene sheeting used as ground cover in storage tank cleaning and personal protective equipment used in various tasks during this phase of work. Waste characterized by WCS-1.	2 x 55-gals.
Lead-Contaminated Soils	Soils excavated from northwest corner of pad which contained elevated concentrations of leachable lead in previous investigation. Characterized by samples LWS-1 and WCS-1. Soil combined with stockpile of Metal-Residue Contaminated Pipe.	1 x 55-gals.
Monitoring Well Development Water	Water removed from wells MW-1, MW-7, MW-8, and MW-9 during development for groundwater sampling.	2 x 55-gals.

Table 3-2

Well Development Data
Evans Street Site
Batavia, NY

Location	MW-1	MW-7	MW-8	MW-9
Date	09/08/92	09/08/92	09/08/92	09/08/92
Depth to Water	7.62 feet	7.93 feet	5.72 feet	7.30 feet
1 Well Volume	1.7 gallons	1.0 gallons	1.6 gallons	3.4 gallons
Volume Removed	6.6 gallons	4.4 gallons	4.6 gallons	16 gallons
Well Volumes Removed	3.9	4.4	2.9	4.7
Notes:	Waster is clear; recharge is fast, but can be purged dry.	Water is clear, recharge is appx. 1'/ 3-4 min.	Water is gray-brown, no sheen, turbid; recharge is very fast.	Water is dark gray to black, sheen on surface, turbid; recharge is immediate.
Date	09/09/92	09/09/92	09/09/92	09/09/92
Depth to Water	7.74 feet	8.07 feet	5.82 feet	7.72 feet
1 Well Volume	1.6 gallons	1.0 gallons	1.5 gallons	3.3 gallons
Volume Removed				23.0 gallons
Well Volumes Removed				7.0
Notes:				Water is brown-green and turbid, clears little at end with fine sand and silt removed throughout purge.
Date	09/10/92	09/10/92	09/10/92	09/10/92
Depth to Water	7.81 feet	8.15 feet	5.91 feet	7.58 feet
1 Well Volume	1.6 gallons	1.0 gallons	1.5 gallons	3.2 gallons
Volume Removed	8.0 gallons	5.0 gallons	7.5 gallons	14.0 gallons
Well Volumes Removed	5.0	5.0	5.0	4.4
Notes:	Water is brown, turbid, some silt and fine sand. Temperature is 57degrees F at start, 53 degrees F at end of purge.	Water is brown, turbid, some silt and fine sand. Temperature is 58 degrees F at start, 56 degrees F at end of purge.	Water is brown to gray-brown, turbid, some silt and fine sand. Temperature is 55 degrees F at start, 53 degrees F after 2 volumes removed.	Water is brown-green and turbid, clears little at end with fine sand and silt removed throughout purge.

TABLE 4-1

ANALYTICAL PARAMETERS

Sample Category	Parameters
Concrete pad borings	TCLP- VOCs, BNAs, metals, pesticides/PCBs, herbicides; total BTEX; TOX; ignitability; reactive sulfide and cyanide; corrosivity; pH; percent moisture (total BTEX, TOX, and percent moisture not performed on concrete samples)
Post-excavation samples and lead-contaminated area samples	TCLP- BTEX, BNs, lead
Hydraulic lift sludge	TCL-PCBs; TCLP-lead
Hydraulic lift soil	TCLP-BNs
Potentially-solvent contaminated soil	TCL- VOCs and BNAs
Waste characterization samples	TCLP- VOCs, BNAs, pesticides, herbicides, metals including nickel; TCL-PCBs; TPHC; ignitability; reactivity to sulfide; pH, (WCS-4 was fingerprinted for type of hydrocarbon only)
Groundwater samples	purgeable aromatics; PAHs

TABLE 4-1

ANALYTICAL PARAMETERS

Parameter Acronyms:

TCLP =	toxicity characteristic leaching procedure
TCL =	target compound list
VOCs =	volatile organic compounds
BTEX =	benzene, toluene, ethyl benzene, xylene
BNAs =	base neutral and acid extractables
BNs =	base neutral extractables
PCBs =	polychlorinated biphenyls
TOX =	total organic halogens
PAHs =	polynuclear aromatic hydrocarbons

TABLE 4-2

ANALYTICAL METHODS

Parameter	Analytical Method	Method Reference
TCLP Extraction	1311	1
VOCs	ASP 91-1[(1)]	2
	8260[(2)]	3
BTEX	602/8020	4/3
BNA/BN extractables	625/8270	4/3
PAHs	625	3
TPHCs	418.1	5,5[(1)]
Metals	6010/7000 series	3
Pesticide/PCBs	ASP 91-3	2
PCBs	8080	3
Herbicides	8150	3
TOX	9022	3
Ignitability	1010	3
Corrosivity	1110	3
Reactivity- cyanide	Chapter 8	3
Reactivity- sulfide	Chapter 8	3
pH	9040	3
Percent moisture		6

Notes:

(1) concrete pad borings and potentially solvent-contaminated soil
(2) waste characterization samples

Method References:

1) Identification and Listing of Hazardous Waste, 40 CFR Part 261 Appendix II, June, 1990
2) Analytical Services Protocol (ASP), NYSDEC, September 1989, Revisions 12/91
3) Test Methods for Evaluating Solid Waste, USEPA, SW-846, 3rd Edition, 1986 with revisions 1987
4) Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR Part 136, July 1, 1990
5) Methods for Chemical Analysis of Water and Waste, USEPA-600/4-79-020, 1983
5[(1)] As modified by NJDEPE-BISE (for the concrete pad boring samples)
6) Statement of Work for Organics Analysis, USEPA Contract Laboratory Program, 1990 with revisions

TABLE 4-3

Concrete Pad Boring Samples
Results Summary Table
Batavia, NY
Sample Identification / Sample Date

Analysis	Regulatory Level (MCL)	B-1 4'-8' 7/20/92	B-1 PAD 7/20/92	B-2 2'-10 7/20/92	B-2 PAD 7/20/92	B-3 4'-8' 7/20/92	B-3 PAD 7/20/92	B-4 4'-8' 7/21/92	B-4 PAD 7/21/92	B-5 4'-8' 7/21/92	B-5 PAD 7/21/92	B-6 4'-8' 7/21/92	B-6 PAD 7/21/92
TCL- BTEX													
Benzene ug/kg	NE	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Toluene ug/kg	NE	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Ethylbenzene ug/kg	NE	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
Xylene (total) ug/kg	NE	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA
TCLP Base Neutral Organics mg/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Volatile Organics mg/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Metals													
Barium mg/l	100.0	.559 B	.232 B	.983 B	.212 B	.878 B	.261 B	.494 B	.245 B	.616 B	.261 B	.609 B	.605 B
Lead mg/l	5.0	.0481 U	.0481 U	.350 B	.105 B	.0481 U	.0481 U	.0481 U	.0481 U	.0481 U	.0481 U	.0481 U	.0481 U
TOX (ppm)		0.074 J	NA	<0.050 J	NA	<0.050 J	NA	<0.050 J	NA	0.15 J	NA	<0.050 J	NA
pH	<2 or >12.5	7.94	9.63	8.65	9.44	8.23	9.24	8.57	9.40	8.62	9.76	8.05	9.78
Corrosivity, inches/year	>.250	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ignitability, degrees F	<140	>212	>212	>212	>212	>212	>212	>212	>212	>212	>212	>212	>212
Reactivity to Cyanide, ppm		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Reactivity to Sulfide, ppm		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
% Moisture	NE	80.1	NA	79.9	NA	84.0	NA	84.7	NA	85.0	NA	84.0	NA

NA: Not Analyzed
ND: Not Detected
NE: Not Established
B: Concentration above the instrument detection limit, but below the contract required detection limit.

J: Associated value estimated.
U: The material was analyzed for but was not detected. The numerical value is the sample quantitation limit. In some cases, this result may have been adjusted to reflect contamination from laboratory or field activities.

TABLE 4-4
Lead Waste Area and Post Excavation Samples
Results Summary Table
Evans Street Site
Batavia, NY
Sample Identification / Sample Date

Analysis	Regulatory Level (MCL)	LSG-1 7/24/92	LCS-1 7/24/92	LWS-1 7/24/92	PXS-1 7/22/92	PXS-2 7/23/92	PXS-3 7/24/92	PXS-4 7/24/92	PXS-5 7/24/92	PXS-6 7/24/92	PXS-7 7/24/92	PXS-8 7/28/92
TCLP - BTEX mg/l												
Benzene	0.5	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Ethylbenzene	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
TCLP Base Neutral Organics mg/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Volatile Organics mg/l		NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals												
Barium mg/l	100.0	NA	NA	0.697 B	NA	NA	NA	NA	NA	NA	NA	NA
Lead mg/l	5.0	0.0481 U	0.222 B	0.132 B	0.166 B	0.0481 B	0.225 B	0.0481 U	0.0823 B	0.107 B	0.0562 B	2.090
TOX ppm		NA	NA	0.052J	NA	NA	NA	NA	NA	NA	NA	NA
pH	<2 or >12.5	NA	NA	7.72	NA	NA	NA	NA	NA	NA	NA	NA
Corrosivity, inches/year	>.250	NA	NA	<0.01	NA	NA	NA	NA	NA	NA	NA	NA
Ignitability, degrees F	<140	NA	NA	>212	NA	NA	NA	NA	NA	NA	NA	NA
Reactivity to Cyanide, ppm		NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA
Reactivity to Sulfide, ppm		NA	NA	<1	NA	NA	NA	NA	NA	NA	NA	NA
% Moisture	NE	NA	NA	14.0	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons, ppm (dry wt.)	NE	NA	NA	807	NA	NA	NA	NA	NA	NA	NA	NA
PCBs ug/L												
Aroclor-1260	NE	NA	NA	44 J	NA	NA	NA	NA	NA	NA	NA	NA

NA: Not Analyzed
ND: Not Detected
NE: Not Established
B: Concentration above the instrument detection limit, but below the contract required detection limit.

J: Associated value estimated.
U: The material was analyzed for but was not detected. The numerical value is the sample quantitation limit. In some may have been adjusted to reflect contamination from laboratory or field activities.

TABLE 4-4
Lead Waste Area and Post Excavation Samples
Results Summary Table
Evans Street Site
Batavia, NY
Sample Identification / Sample Date

Analysis	Regulatory Level (MCL)	PXS-9 7/28-29/92	PXS-10 8/5/92	PXS-11 8/5/92	PXS-12 8/5/92	PXS-13 8/5/92	PXS-14 8/5/92
TCLP - BTEX mg/l							
Benzene	0.5	0.001 U	0.0011	0.0011	0.0012	0.001 U	0.001 U
Toluene	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.0009 J	0.001 U
Ethylbenzene	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylene (total)	NE	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
TCLP Base Neutral Organics mg/l		ND	ND	ND	ND	ND	ND
TCLP Volatile Organics mg/l		NA	NA	NA	NA	NA	NA
TCLP Metals							
Barium mg/l	100.0	NA	NA	NA	NA	NA	NA
Lead mg/l	5.0	0.0481 U	0.0480 U	0.0480 U	0.0480 U	0.0480 U	0.0480 U
TOX ppm		NA	NA	NA	NA	NA	NA
pH	<2 or >12.5	NA	NA	NA	NA	NA	NA
Corrosivity, inches/year	>.250	NA	NA	NA	NA	NA	NA
Ignitability, degrees F	<140	NA	NA	NA	NA	NA	NA
Reactivity to Cyanide, ppm		NA	NA	NA	NA	NA	NA
Reactivity to Sulfide, ppm		NA	NA	NA	NA	NA	NA
% Moisture	NE	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons, ppm (dry wt.)	NE	NA	NA	NA	NA	NA	NA
PCBs ug/L							
Aroclor-1260	NE	NA	NA	NA	NA	NA	NA

NA: Not Analyzed
ND: Not Detected
NE: Not Established
B: Concentration above the instrument detection limit, but below the contract required detection limit.

J: Associated value estimated.
U: The material was analyzed for but was not detected. The numeric may have been adjusted to reflect contamination from laborator

TABLE 4-5

Other Samples
Results Summary Table
Evans Street Site
Batavia, NY
Sample Identification / Sample Date

Analysis	Regulatory Level (MCL)	HJL-2 7/28/92	ESS-1 7/30/92	HJS-2 8/31/92
TCL Volatile Organics ug/kg				
Methylene chloride	NE	NA	13 U	NA
Acetone	NE	NA	24 U	NA
TCL Semivolatile Organics ug/kg				
Di-n-Butylphthalate	NE	NA	1200	ND
bis(2-Ethylhexyl)phthalate	NE	NA	120 U	NA
PCB's ug/kg				
Aroclor-1260	NE	ND	NA	NA
TCLP Base Neutral Organics mg/l		NA	NA	ND
TCLP Metals				
Barium mg/l	100.0	NA	NA	NA
Lead mg/l	5.0	3.33	NA	NA

NA: Not Analyzed
ND: Not Detected
NE: Not Established
U: The material was analyzed for but was not detected. The numerical value is the sample quantitation limit. In some cases, this result may have been adjusted to reflect contamination from laboratory or field activities.

TABLE 4-6

Waste Characterization Samples
Evans Street Site
Batavia, NY
Sample Identification / Sample Date

Analysis	Regulatory Level (MCL)	WCS-1 8/31/92	WCS-2 8/31/92	WCS-3 8/31/92	WCS-4 8/31/92
TCLP Base, Neutral, and Acid Extractables mg/l		ND	ND	ND	NA
TCLP Volatile Organics mg/l		ND	ND	ND	NA
TCLP Metals					
Lead mg/l	5.0	ND	60	0.2	NA
TCLP Pesticides mg/l		ND	ND	ND	NA
TCLP Herbicides mg/l		ND	ND	ND	NA
PCBs ug/l	NE	ND	ND	ND	NA
Total Petroleum Hydrocarbons mg/kg	NE	25000	11000	110000	NA
Total Cyanide mg/kg	NE	23.0	<1.0	6.0	NA
pH	<2 or >12.5	8.15	8.39	7.46	7.26
Flash Point, degrees F	<140	>200	>200	>200	>200
Reactive Sulfide, mg/kg		<10	<10	60	NA
Unleaded gasoline ug/l	NE	NA	NA	NA	14000

NA: Not Analyzed
ND: Not Detected
NE: Not Established

TABLE 4-7

Groundwater Samples
Results Summary Table
Evans Street Site
Batavia, NY
Sample Identification / Sample Date

Analysis	NYS Groundwater Quality Standard	MW-1-92 9/10/92	MW-7-92 9/10/92	MW-8-92 9/10/92	MW-9-92 9/10/92	MW-QC 9/10/92	TB 9/10/92
Purgeable Aromatic Hydrocarbons ug/l							
Toluene	5	0.9 J	0.8 J	1.8	0.7 J	0.5 J	ND

Analysis	NYS Groundwater Quality Guidance Value	MW-1-92 9/10/92	MW-7-92 9/10/92	MW-8-92 9/10/92	MW-9-92 9/10/92	MW-QC 9/10/92
Polynuclear Aromatic Hydrocarbons ug/l						
Fluoranthene	50	ND	ND	ND	0.3 J	0.3 J
Pyrene	50	ND	ND	ND	0.5 J	0.6 J

NA: Not Analyzed
ND: Not Detected
J: Associated value estimated.